

MASTER OF SCIENCE IN MANAGEMENT

**DEVELOPING WORLD-CLASS CUSTOMER SERVICE AT NAVY FIELD
CONTRACTING ACTIVITIES: AN ASSESSMENT OF THE
FISC SAN DIEGO REGIONAL CONTRACTS DEPARTMENT**
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This thesis assesses the customer service ability of the FISC San Diego Regional Contracts Department. Utilizing both archival research and interviews, a service quality benchmark is determined and then applied to FISC San Diego Regional Contracts Department to assess service ability and identify areas for possible improvement. This assessment process highlights the recent emphasis on improved service quality both in the Federal Government and the private sector. The thesis defines world-class customer service and then describes various aspects of service quality including the customer's perspective on service, how service is delivered, how to effectively communicate with the customer, and how organizations can implement change to enhance their service quality.

**PAST PERFORMANCE IN SUPPLIER CERTIFICATION PROGRAMS: A STUDY OF
CURRENT CERTIFICATION AND INCENTIVE PRACTICES IN CERTIFIED SUPPLIER PROGRAMS**
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Since the mid 1980s both Government and private sector buying organizations have used certified supplier programs to improve the quality of their supplier base. Certified supplier programs improve a company's suppliers by requiring and recognizing excellent quality practices and by eliminating poor quality suppliers. This study examines current commercial and Government certified supplier programs, including the Army Contractor Performance Certification Program CP (2), in order to find successful certification techniques and recommend improvements to CP (2). Some of the better practices currently in use are: requiring a high level of past quality performance for certification, giving certified contractors more future business as an incentive for participation, and using ISO 9001 as the common standard for quality management processes. By adopting these techniques, the Army can improve CP (2) and make it an even more valuable program.

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THE FEASIBILITY OF IMPLEMENTING A PRIME VENDOR PROGRAM FOR LABORATORY SUPPLIES AND RELATED MATERIAL

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In 1993, the Department of Defense (DoD) implemented an inventory reduction program for medical treatment facilities referred to as Prime Vendor (PV). This program was a new approach to the procurement and management of pharmaceutical and medical/surgical supplies. The results have been documented as an overwhelming success.

Typically, a medical treatment facility's laboratory department has the same type of inventory issues as a pharmacy. The products have a predictable usage rate and usually a short shelf life, overstocking typically occurs, a considerable amount of man power is applied to maintaining the stock, and information technology is not used to expedite order processing.

This research provides insight into the feasibility and effects of implementing a prime vendor program for laboratory supplies and related material. The findings show that many of the benefits realized in civilian industry and in the Pharmaceutical and Medical/Surgical Prime Vendor Programs can be realized in the medical treatment facility's laboratory departments with the creation and implementation of a Laboratory Prime Vendor Program.

COST-BENEFIT ANALYSIS OF THE ENHANCED TRANSPORTATION SERVICE PROGRAM

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This thesis is a cost-benefit analysis of the Enhanced Transportation Service (ETS) Program, which is a proposed initiative under the Marine Corps' "Precision Logistics" concept. The general focus of "Precision Logistics" is to provide the warfighter with the right thing, at the right place, at the right time, with the least amount of effort and cost (Hamilton, 1996). The specific focus of the ETS Program is to utilize premium transportation service (i.e., next day air) to reduce order ship time (OST), which will result in lower stockage levels. The intent of this study was to determine if the benefit derived from reduced stockage levels outweighs the additional cost of air shipment. This is intended to be the first in a series of studies of the ETS Program. The study was based on the requisitioning objective (RO) stockage level. A computer spreadsheet model of the RO formula was built and two Monte Carlo simulation runs conducted to determine if the ETS Program is cost effective. Results of the analysis suggest that the cost of premium transportation service is significantly less than the cost of additional inventory that would have to be carried if premium transportation were not utilized. Therefore, further research of the ETS Program is warranted. Recommendations on the direction of future studies are provided.

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PRIVATIZATION OF UTILITIES IN GOVERNMENT OWNED HOUSING: A MODEL APPROACH

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This thesis examines the option of privatizing electricity and gas utilities, requiring residents of Navy Family Housing (NFH) to pay for all consumption. To assist in the payment, an Utility Housing Allowance (UHA) would be provided to residents based on the average consumption of local Private Sector Housing (PSH) residents. The goal of this thesis is to determine if implementing an UHA would reduce the overall energy consumption in NFH. Specifically, it determines the historical usage of electricity and gas in the Naval Postgraduate School's La Mesa housing village (LMV) area and the local PSH areas. It then develops forecasting models for both areas to predict the future consumption of utilities, sets a baseline consumption rate for LMV residents, and identifies the savings that would be generated from implementing the UHA program.

After validating the forecasting models and comparing costs under the UHA concept, this study concludes that the UHA concept would save approximately \$268,300 annually at LMV alone. Additionally, in meeting the Navy's Year 2005 goal of reducing energy consumption by 30% per square foot, by implementing an UHA concept, the projected savings in LMV alone are approximately 50% per square foot/month. Although the study focuses on LMV, it is assumed that similar energy inefficiencies are being demonstrated in other NFH areas. Therefore, this study provides the necessary steps to conduct comparative analysis in other NFH areas.

APPLICABILITY OF SUBSISTENCE PRIME VENDOR TO CONTINGENCY RATIONS

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This study evaluates the Subsistence Prime Vendor program in the Armed Services and the Department of Defense (DoD). This thesis provides an assessment of Prime Vendor successes, concerns, and whether this program can be implemented for contingencies and contingency rations. Additionally, this study explores the use of Total Asset Visibility (TAV) in defining the interface between the military and commercial sectors.

Prime Vendor (and Direct Vendor) programs were initiated in 1993 to achieve cost savings in the supply and distribution of subsistence to DoD customers. The intent of the Prime Vendor program is to provide the military with an exceptional distribution and inventory control methodology. However, several critical issues remain unaddressed. Force preparedness and readiness in wartime remain nagging questions. Despite the momentum that this and other privatization efforts have gained, many of the benefits, specifically with respect to cost-savings, have not been fully identified or realized in "real" terms.

Current Total Asset Visibility (TAV) ventures and projects still fail to identify and articulate the interface between commercial and military logistics systems. Subsequently it is proposed that the interface between the military and civilian logistics structures must occur in CONUS (Continental United States) or at the wholesale level in-theater. The aggressive use of EDI (Electronic Data Interchange) can promote high levels of administrative efficiency and accuracy once this interface is established.

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POTENTIAL IMPROVEMENTS IN DEFENSE COMMISSARY AGENCY (DeCA) DECISION MAKING IF GROCERY INDUSTRY FINANCIAL REPORTING FORMATS AND METHODOLOGY ARE UTILIZED

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The Defense Commissary Agency (DeCA) holds a unique position within the Department of Defense (DoD) by being the only agency that runs a self-sustaining operation. As such, its operations run closely to that of the private sector, in particular the grocery industry.

DeCA currently utilizes a standardized federal reporting format for its three principal statements, per Office of Management and Budget guidelines. The Statement of Cash Flows is the only statement of the three whose format is conducive to providing beneficial information to an external user (Congress, citizens, etc.). The Statement of Financial Position and Statement of Operations (and Changes in Net Position) formats, on the other hand, provide useful information to the Office of Management and Budget, but not to the external user.

This thesis examines DeCA's financial statements and discusses the shortcomings of the two statements' formats. It further proposes new formats which are more aligned with grocery industry formats and conducts comparative analysis with two grocery firms and the grocery industry as a whole.

FINANCING CONTINGENCY OPERATIONS IN THE NEW STRATEGIC ENVIRONMENT: ARE WE PROPERLY MATCHING RESOURCES WITH MISSION REQUIREMENTS?

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The purpose of this study is to assess risks associated with the way in which U.S. armed forces contingency operations are financed. This assessment includes: (1) an analysis of the strategic operating environment. This analysis reveals significant post Cold War trends that suggest past methods of financing contingency operations are no longer appropriate. (2) A study of how contingency operations are currently financed and an assessment of the risks associated with these methods. This section tracks the flow of funds for three recent contingency operations. (3) A new approach to financing contingency operations to mitigate the risks associated with a changing strategic environment and more efficiently allocate resources.

The major findings are that the post-Cold War strategic environment is changing in ways that are likely to increase the frequency and scope of contingency operations. Current methods of financing contingency operations are highly controlled, inflexible and inadequate for meeting national security needs. Mission financing is an approach to resourcing contingency operations that facilitates adaptation to the needs of a changing strategic environment to provide a better match between resources and mission requirements.

COMMUNICATION APPREHENSION AND CONTRACT NEGOTIATIONS

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This research focused on communication apprehension (CA) as it relates to contract negotiations. A model was developed to examine what may affect one's CA in a contract negotiation situation. Survey data were gathered from 231 Government

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and 442 industry personnel (reflecting an overall response rate of 61%). The survey asked contract negotiators to complete the Personal Report of Communication Apprehension-24 (PRCA-24) along with six questions specifically related to negotiations. Additionally, the survey asked participants their opinions about factors affecting their anxiety level prior to and during the negotiation process, preparation, coping mechanisms used to offset anxiety and the type of resources they felt would be most beneficial (e.g., counseling, preparation, mock negotiations).

Results from the PRCA-24 showed a score 12 points less than the national average indicating that those in the contract negotiation field are less communication apprehensive than the norm. Differences between Government and industry were examined by individual factors, CA, negotiation factors, and outcome. Recommendations were made with respect to training, management support, preparation, preparation time, survey modifications, and further research.

SEXUAL HARASSMENT POLICIES AND PROGRAMS IN THE MILITARIES OF THE TECHNICAL COOPERATION PROGRAM (TTCP) COUNTRIES

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This thesis examines the policies, programs, and scope of sexual harassment in the United States Navy and the military forces in The Technical Cooperation Program (TTCP) countries, (United States, New Zealand, Australia, Canada, and United Kingdom). It highlights the most effective approaches to eliminate sexual harassment and makes recommendations for improvement. Research was conducted on the information provided from all participating countries.

This thesis assesses the background surrounding sexual harassment, including initial recognition, associated watershed events, and the role of women; reviews each country's national and military sexual harassment policies; describes sexual harassment training and associated programs, assessment groups, measurement instruments, and scope of sexual harassment; analyzes the common themes that emerge and the international highlights of the most effective programs; and provides recommendations.

Several critical elements are highlighted in this study. These include the general approach taken by New Zealand and Canada; the Canadian Defense Force's training program and cultural change efforts; the U.S. Navy's prevention and command assessment program; and the Australian, Canadian, and New Zealand emphasis on a well-conducted investigation. The leading recommendation stresses the need for TTCP militaries to take the steps required to evoke a cultural change to affect the attitudes and perceptions of personnel.

INVENTORY REDUCTION USING BUSINESS PROCESS RE-ENGINEERING AND SIMULATION MODELING

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Inventory reduction is one of the most critical areas facing DoD in this era of diminishing resources and increasing global commitments. This thesis analyzes the concept of cycle time reduction as a significant method to reduce inventory levels. The order fulfillment process of a distribution center is analyzed using simulation modeling and business process reengineering (BPR) concepts. The two simulation models were designed and evaluated by measuring the cycle time of an order flowing through the distribution center. The results indicate that the cycle time of the order fulfillment process can be reduced by 90%, inventory levels reduced by 77%, with a labor savings of \$60,000. This was achieved by reengineering the order fulfillment process from a batch system to one that sends incoming orders directly to the warehouse for order selection. The implications for the DoD are critical to the goal of inventory reduction; by focusing on the reduction of cycle time, in-

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process inventories are also reduced. The use of business process reengineering and simulation modeling offer powerful tools to aid the manager in reducing cycle time and inventory levels.

A CASE STUDY OF THE MATERIALS MANAGEMENT DEPARTMENT AT THE NAVAL MEDICAL CENTER SAN DIEGO BENCHMARKING EFFORT

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This thesis sought to provide lessons learned, recommendations, and provoke thought among medical logisticians on the use of benchmarking. The researcher used a single case research strategy to assess how successful the Materials Management Department at the Naval Medical Center San Diego has been in implementing benchmarking as suggested by strategic objective 2.5.43 of the 1994 draft of the Navy Medical Logistics Strategic Plan. Information on the implementation of benchmarking in the Materials Management Department was based upon a questionnaire, document reviews, and direct observation. The research included reading and reviewing the current literature on benchmarking to compare private sector thinking with current practices in the Materials Management Department. The benchmarking case used the Ten-Step Department of the Navy Benchmarking Model and interview questions. The analysis and conclusions are based upon the initial research questions and the framework of the critical success factors for a benchmarking study. The results of the case suggest a cost-benefit analysis was done to purchase sterilization equipment.

ANALYSIS OF THE MEDICAL AUGMENTATION PROGRAM

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This thesis reviews medical readiness in the U.S. Navy. Data from multiple sources were used to analyze medical readiness issues. Analysis shows that Navy medical readiness needs to improve. Recommendations address the formulation of a readiness organization within the Military Treatment Facility (MTF). This organization would utilize the existing MTF organization and provide continuity, command involvement, and a means for continuous improvement.

AN ANALYSIS ON THE EFFECTS OF THE AIRCRAFT SERVICE PERIOD ADJUSTMENT (ASPA) PROGRAM ON THE DIRECT COSTS OF STANDARD DEPOT LEVEL MAINTENANCE (SDLM) FOR THE F-14A

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In 1984 the Navy implemented the Aircraft Service Period Adjustment Program (ASPA) which was designed to induct aircraft into Standard Depot Level Maintenance (SDLM) only after they fail to meet certain criteria during an inspection. This thesis used regression analysis to explore the relationship between time F-14A aircraft serve in tour and the direct costs of the corresponding SDLM.

Almost every year of ASPA, the average direct labor and material costs of F-14A SDLM have increased, rising from \$763,571 in 1985 to a high of \$1.68 million in 1993. However, this analysis shows that only a weak correlation exists

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between the number of months an aircraft spends in tour and the direct costs of SDLM. A multiple regression model including additional variables such as aircraft age, tour number, whether a modification was performed concurrently, and work standard was found to explain 57 percent of the variation in the direct costs of SDLM. The effect of time in tour was insignificant.

COST SAVINGS AND OTHER BENEFITS FROM TRANSFERRING NAVY FAST COMBAT SUPPORT SHIPS TO THE NAVAL FLEET AUXILIARY FORCE

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The U.S. Navy's Fast Combat Support Ships (AOEs), which are the largest and most powerful logistics ships in the world, are designed to meet all of the logistical needs of an Aircraft Carrier Battle Group. Without an AOE, a battle group would lack the logistics support that it requires to perform its crucial missions of global presence, power projection and sea control. Yet today, battle groups must perform these missions with smaller budgets than in the past. To relieve some of this fiscal pressure, the AOEs could be transferred to the Military Sealift Command's Naval Fleet Auxiliary Force (NFAF), whose civilian-crewed ships operate at a lower cost than Navy ships. Transferring the AOEs to the NFAF could save an estimated \$140 million per year.

ANALYSIS OF TRANSFERRING U.S. NAVY PERRY CLASS FRIGATES TO TURKEY AND ISSUES RAISED DURING THE PROCESS

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This thesis analyzes the process used to transfer U.S. Navy Perry class frigates to Turkey and issues raised during this transfer process. Up to the final step, this transfer was representative of most U.S. military equipment transfers. The relations between allied countries depend heavily on the mutual support they provide to each other. Strong relations create strong mutual support, or vice versa. Although the FMS/FML process is a very effective process for ship transfers, political issues must never be underestimated. As the Cold War came to an end, the mutual threat had changed, affecting alliances and rephrasing the causes of their existence. The effect of this change has caused more domestic oriented policies to predominate within a country's political system.

Although this policy change didn't cause procedural changes in regulations and rules, the application of the decisions given and approved by the highest executive and legislative branch authorities are now more subjective and seem unpredictable. Long-term and continuous repetition of this behavior could cause negative impact on alliances.

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USING AN EVOLUTIONARY ACQUISITION STRATEGY TO IMPROVE THE SYSTEM ACQUISITION PROCESS: A CASE STUDY OF THE REMOTE MINEHUNTING SYSTEM

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This thesis discusses the need for a mine countermeasure capability integral to the surface navy and the acquisition strategy used to produce the Remote Minehunting System (RMS). Directed to develop a system quickly and given a limited budget, the Program Executive Officer Mine Warfare formulated an acquisition strategy that used existing commercial technology to provide the core capability for the RMS. The acquisition strategy also planned for the upgrade of the core capability through a series of pre-planned product improvements. The evolutionary acquisition (EA) strategy enabled the Navy to test the RMS concept aboard the *USS John Young* and the *USS Cushing*.

The thesis compares the EA strategy with the traditional model and concludes that the EA strategy uses the same framework as the OMB A-109 model. Additionally, use of EA concepts such as pre-planned product improvement, early fielding and testing of a core capability, and user involvement are compatible with current laws and regulations. Finally, the thesis concludes that program managers are inhibited from using innovative techniques to reduce cycle time by cultural and technological barriers throughout the system acquisition process.

A DICTIONARY OF ACQUISITION AND CONTRACTING TERMS

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This thesis is part of a joint research project between students of the Naval Postgraduate School in Monterey, CA and the Air Force Institute of Technology, Wright-Patterson Air Force Base, Dayton, OH. The purpose of the research is to establish working definitions for commonly used contracting and acquisition terms and phrases. Twenty-five terms were selected from a master list compiled by previous researchers. Contracting literature and regulations were researched to identify published definitions. The published definitions were used to develop a synthesized definition for each of the 25 terms. The synthesized definitions were submitted to contracting professionals for examination and comments. The acceptability of proposed definitions was based upon consensus and the input from respondents was used to develop a refined definition.

THE EFFECTS OF PRE-SERVICE CRIMINAL HISTORY ON RECRUIT PERFORMANCE IN THE U.S. NAVY

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The purpose of this thesis is to determine the potential gain from using information from state criminal history files as a screen for enlistment. Additionally, two more fundamental questions are addressed. First, what is the level of pre-service criminal behavior in the recruit population and to what extent is it "hidden" from the Navy? Second, does pre-service criminal behavior affect first term performance, and if so, how large is the effect? The data examined are composed of MEPCOM personnel files combined with state criminal history records which allow determination of recruits' actual recorded criminal backgrounds. Four measures of recruit success are identified: first-term unsuitability attrition; promotion to paygrade E-4; reenlistment eligibility; and retention beyond EAOS. Employing cross-tabulations and logit models, this

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research compares the effects of juvenile versus adult offenses, felony versus non-felony offenses, and convictions versus arrests on the likelihood of success. The results indicate that a moral waiver process relying on self-disclosure may not be effective in identifying an individual's criminal background and that recruits with pre-service criminal histories are more likely to attrite for unsuitability and are less likely to promote to E-4, be reenlistment eligible, or remain in the Navy beyond their EAOS. This study suggests adult felony criminal histories are effective predictors of future recruit success and recommends using state criminal information in the recruit selection process.

RELOCATING DEFENSE LOGISTICS AGENCY STOCK AT CLOSING AND DEACTIVATING WAREHOUSES

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In the past five years, the Base Realignment and Closure Commissions (BRAC) have ordered the Defense Logistics Agency (DLA) to close or deactivate 15-20 distribution centers. Consequently, DLA has been forced to relocate millions of items of wholesale stock to the remaining depots. Past relocation actions have placed most, if not all, displaced stock at one of the Primary Distribution Sites in Susquehanna, PA and at San Joaquin, CA without regard to the expected location of demand for that stock. A method is presented for relocating stock that places stock near its expected demand points, thus reducing future delivery costs and logistics response time.

AN ANALYSIS OF THE UNITED STATES SPECIAL OPERATIONS COMMAND'S ACQUISITION PROCESS TO DETERMINE ITS COMPLIANCE WITH ACQUISITION REFORM INITIATIVES OF THE PAST DECADE

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The United States Special Operations Command (USSOCOM) is a vital component of our nation's defense that is called upon daily to accomplish a wide variety of unique and challenging missions throughout the world. A critical element of USSOCOM's success is its ability to acquire the finest equipment available to achieve these missions. This research analyzes USSOCOM's acquisition process to determine its level of success at delivering this equipment, and focuses primarily on its ability to incorporate acquisition reform initiatives of the past decade into the process. In developing this analysis, the following areas are discussed: the roles and missions of USSOCOM, acquisition reform initiatives of the past decade beginning with the Packard Commission, the findings and recommendations of the USSOCOM Acquisition Process Action Team Report and the acquisition process at USSOCOM.

Based on the research conducted, it is clear that, overall, USSOCOM has done a superb job incorporating reform initiatives into its acquisition process. Areas determined to be non-compliant relate primarily to the concept of empowerment of the Program Executive Officers (PEO). Recommendations for correcting these weaknesses include giving PEOs the authority to execute reprogramming and realignment in accordance with established legal thresholds.

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ANALYSIS OF PRIVATIZATION OF THE JACKSONVILLE MILITARY COMPLEX'S POTABLE WATER DISTRIBUTION SYSTEMS

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Privatization of Department of Defense utility systems has become a central issue. It is seen as a way to relieve the Services of their current burden of huge maintenance and repair backlogs for aging systems. This thesis performs an economic analysis to determine whether it is economically feasible to privatize the Jacksonville Military Complex's potable water distribution systems. To address this issue, current legislation affecting utilities privatization was studied. Interviews were conducted with representatives of the Army, Navy, and Air Force regarding their current utilities privatization efforts. A case study of NAVWEPSTA Earle was used to provide the framework in which the Jacksonville decision should be made. Data was gathered from NAS Jacksonville, NAS Cecil Field, and NAVSTA Mayport to calculate their annual water consumptions and the current plant value of their water systems. The systems' current plant value was obtained from NAVFAC's P164 and adjusted for accumulated depreciation to provide the net current cost of the systems. These figures were used to derive the net present value of both the status quo scenario and the privatization scenario. Based upon the net present value calculations, privatization of the systems is recommended.

THE TRICARE MANAGED CARE SUPPORT CONTRACTS—AN ANALYSIS OF THE BID PRICE ADJUSTMENT AND RESOURCE SHARING MECHANISMS

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DoD health care costs are escalating rapidly. Managed care is one way to control costs effectively while maintaining, or increasing, quality and accessibility of care. The TRICARE Program has transformed CHAMPUS from being a fee-for-service system to a managed care organization. DoD understands that to run a smaller more efficient health care system effectively, it must continue to pursue managed care. TRICARE must continually improve on health care delivery methods. This starts by implementing an effective, well-constructed contract.

This thesis examines the unique features of the Tri-Service Coordinated Care (TRICARE), Managed Care Support (MCS) contracts. Specifically, it answers the question—What are the unique characteristics of the military's TRICARE MCS contracts, and are they functioning sufficiently to achieve the objectives of the TRICARE Program? In answering this question, the bid price adjustment (BPA) and risk sharing mechanisms are analyzed. The TRICARE Program is compared to past military health care programs, and the considerations which led to the inclusion of the bid price adjustment (BPA) and risk sharing mechanisms are examined. Finally, a working-level perspective of the problems with these unique mechanisms is presented, and recommendations are made to improve the next generation of TRICARE MCS contracts.

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AFFECT OF CONTRACTOR'S ESTIMATING SYSTEM DEFICIENCIES AND DISAPPROVALS ON DOD PROCURING CONTRACTING OFFICERS

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Contractor estimating systems that produce reliable proposals are a key safeguard for the Government to obtain fair and reasonable contract prices for goods and services. Government Administrative Contracting Officers (ACO), with the help of the Defense Contract Audit Agency (DCAA), are responsible for determining the adequacy of contractor's estimating systems. If a DCAA audit finds estimating systems deficiencies, the ACO may take several actions including disapproving the contractor's system, in part or in whole. The process of formal disapproval and deficiencies resolution is a series of contractor written responses, corrective action plans, and ACO evaluations. This process can take years before a final determination is made. This thesis will focus on how the Procuring Contracting Officer (PCO) obtains the information about deficiencies or disapproval and what actions he/she takes to ensure the Government is receiving a fair and reasonable price for the goods and services it buys.

AN ANALYSIS OF CONTRACTS AWARDED IN THE FACE OF A NEGATIVE PREAWARD SURVEY RECOMMENDATION

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The purpose of this thesis is to examine the Department of Defense Preaward Survey process and assess its effectiveness as a source selection and risk management tool. This is accomplished by identifying the primary causes of negative Preaward Survey recommendations, determining how Procuring Contracting Officers use this information in source selection and examining the Department of Defense's experience with contracts awarded in the face of a Negative Preaward Survey.

The data for this research were gathered by reviewing Preaward Survey files and interviewing contract administration office personnel at Defense Contract Management Command (DCMC) and Defense Logistics Agency Headquarters. Personnel from various buying activities throughout the Department of Defense were also interviewed.

This thesis concludes that the Department of Defense Preaward Survey process is operating at a reasonable level of efficiency and effectiveness, but that improvements could be made to its use as a source selection and risk management tool. This conclusion is based upon findings that Preaward Survey information is being utilized effectively for contractor responsibility determinations. However, it was noted that Preaward Surveys are not always useful to facilitate source selection decisions and that Preaward Surveys are not being fully utilized as a risk management tool during preaward and post-award contract management. In addition, this thesis presents ten recommendations for further improvements to the Preaward Survey process.

CONTROLLED EXCHANGE OF CONFIGURATION MANAGEMENT DATA BY INDUSTRY

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In response to DoD's ongoing CALS effort, the Joint Engineering Data Management and Information Control System (JEDMCIS) was developed as a repository for technical data at government sites with the overall intent of improving access

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to engineering data and drawings. Although establishment of this system has facilitated the access of government owned, contractor provided data, the majority of information contained in these repositories is still in the form of aperture cards and is not always readily accessible to be “shared” with other potential users.

This thesis will examine the benefits and potential cost savings applicable to the Navy’s CALS program. Specifically, the potential cost savings associated with implementing a regionalized, shared JEDMCIS database between the Naval Aviation Depot (NADEP) North Island, California, the Naval Air Technical Support Facility (NATSF) in Philadelphia, Pennsylvania, and McDonnell Douglas Aerospace in Saint Louis, Missouri will be discussed. The analysis will begin by reviewing the current and anticipated configuration management requirements for a specific Navy program (F/A18) using existing information technology. A proposed consolidation of the same technical data between both government facilities and the prime contractor using a shared database with subscription based access will then be analyzed and cost comparisons presented.

ARE THERE COST EFFECTIVE ALTERNATIVES TO NAVY READY SUPPLY STORES?

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This study presents two alternatives to the Navy’s Ready Supply Store (RSS) to determine if there is a more cost-effective means of performing their function while still providing the same level of customer support. The RSS is a means of providing supply support to remote site DoD customers for high demand, low cost consumable items needed for day to day operations. This study focuses on the RSS at the Naval Postgraduate School Monterey, CA, and examines two alternatives: a government-wide commercial credit card program and partnering with the nearest Fleet and Industrial Supply Center (FISC). The cost of operations, sales price between government and local vendors, and customer preference are compared. The results suggest that items are slightly less expensive when purchased at the School’s RSS than at local vendors. However, the savings to the school in operations costs and to the Navy in Budget Project 28 funds, by eliminating the RSS, far outweigh the higher cost of purchasing items from local vendors. It was also found that the same level of customer support could be provided if the NPS RSS were eliminated. As a result, it was recommend to eliminate the RSS at NPS and implement the government-wide commercial credit card program.

INDIRECT MISSION SUPPORT COSTS AT THE NAVAL POSTGRADUATE SCHOOL

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This thesis provides Naval Postgraduate School management and administrators with a tool for reviewing and possibly reducing indirect mission support costs. This thesis develops a computerized activity-based costing model for indirect mission support costs at the Naval Postgraduate School by identifying cost drivers and associated cost flows for resources and support activities. Cost drivers and associated cost flows were identified through archival research and unstructured interviews with Naval Postgraduate personnel. Estimated cost allocation figures are calculated which can be used as a starting point to improve cost allocations at the Naval Postgraduate School.

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ESTIMATING THE NUMBER OF AVAILABLE HIGH QUALITY RECRUITS AT A COUNTY LEVEL

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Whether or not a person is available to be recruited is essentially determined by two factors. First, the person has to be desirable to the military in terms of meeting the entry screens. Desirable, as defined by the military, is a person of “high quality.” The “high quality” market is defined as high school graduates scoring above the 50th percentile on the Armed Forces Qualification Test (AFQT). The second factor is determined by the individual’s choice to attend college. A person who attends college is, for all practical purposes, not included in the military enlistment market. The two factors affecting availability are not independent of each other. A person who scores high on the AFQT is more likely to attend college and therefore be exempt from the potential recruitment pool. This simultaneity must be accounted for in determining the probability that a person is not only qualified but also available for recruitment.

This thesis takes into account the simultaneity of being “high quality” and a non-college attendee in a model that uses alternative demographic and economic explanatory variables. These variables include parents’ education, family income, single parent household, race, and gender. The general findings are that individuals with very low or very high values of parents’ education and family income have a lower probability of being in the recruiting pool, whereas those with average values of these characteristics have a higher probability of being in the recruiting pool. This study also finds that minorities were less likely to be in the recruiting pool compared to whites.

JUNIOR SURFACE WARFARE OFFICER RETENTION

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The purpose of this thesis is to identify factors that lead to resignation of junior Surface Warfare Officers (SWO) and to develop an hedonic model of junior SWO turnover. The first source of data was a survey of active-duty, junior SWOs currently serving aboard ships. The second source of data was a survey of 0-3 SWOs who are currently drilling in the Naval Reserves. Results of the two surveys were compared to identify differing levels of satisfaction with the active-duty Navy. The reservists also compared their satisfaction between the active-duty Navy and their current civilian employment. Civilian salary levels were obtained from the reservists and their spouses to determine the pay differential between the Navy and civilian jobs for former junior SWOs.

A regression model found three factors to have significant power in explaining civilian pay: years since leaving active duty, employment status, and comparative work stress between civilian employment and the active-duty Navy. SWOs with full-time employment who experienced the greatest reductions in pay also experienced the greatest reduction in work stress. Junior SWOs experienced, on average, a 20 percent pay cut after leaving active duty. Pay returned to its pre-departure level in 2 to 3 years.

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A METHODOLOGY FOR DETERMINING THE MARGINAL COST PER STUDENT AT THE NAVAL POSTGRADUATE SCHOOL

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The overall objective of this thesis was to develop a flexible model to determine the marginal cost of graduate education per student for each of the various curricula at the Naval Postgraduate School (NPS). In the past, "average cost per student" values were calculated. These calculations missed the nuances of the 44 different curricula (curriculum length, student loading, professor salaries, lab intensive curricula, etc.) at NPS and provided no information as to the marginal costs of graduate education. Two models resulted from the research. The Cost per Curriculum Model calculates the average cost per student for each curriculum, given selected cost inputs. The costs are allocated across the courses and then allocated to the students that took the courses. A second model, Marginal Cost per Student Model, was developed that calculates the marginal cost per student for a single curriculum, for a selected number of additional students. Both models provide the user with considerable flexibility in determining and ultimately better information regarding both the average and marginal costs of graduate education at NPS.

STUDY OF FIRST-TERM ATTRITION AMONG RACIAL/ETHNIC MINORITIES IN THE NAVY

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The objective of this study is to gain a better understanding of first-term enlisted attrition among racial/ethnic groups in the Navy. Previous research on attrition is limited with respect to racial or ethnic variables. The study uses a special database developed by the Defense Manpower Data Center in Monterey, CA. The database contains the records of over 500,000 male recruits who enlisted in the Navy during fiscal years 1983 through 1992. These people are tracked over a 48-month period to determine rates of first-term attrition. Cross-tabulation and frequency analysis are used to examine attrition rates by race, racial/ethnic group, and ethnicity (including 20 categories). Attrition rates for these groups are also evaluated according to several variables: Armed Forces Qualification Test category; high quality status (a combination of education and aptitude test scores); reasons for separation; and occupational area. The exploratory results reveal several trends between and within racial and ethnic groups, based on the selected variables. The results also confirm that a number of racial or ethnic groups have comparatively low rates of attrition. Further research is recommended to more fully explain underlying reasons for the relatively lower rates of attrition experienced by certain minorities.

THE COST AND BENEFITS OF REDUCED MANNING FOR U.S. NAVAL COMBATANTS

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The increasing cost of manpower in the United States Navy has generated a new initiative identified as Smart Ship. Smart Ship, or the uses of technology for manpower reduction, challenges the culture, tradition, and policies of the Navy. The life cycle cost for surface combatants can be reduced following the guidelines of Smart Ship. However, limited analysis has been conducted into the material readiness cost associated with reduced manning. It was the goal of this thesis to concen-

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trate on the cost and benefits of Smart Ship. A maximum savings of 0.54 percent of the total budget for the Department of the Navy is possible, using FY 1996 dollars. Through analysis conducted in the study, the current objective of reducing manpower costs has been determined to be risky and imprudent. Nevertheless, the United States Navy should pursue Smart Ship to enhance combat effectiveness and quality of life, thereby increasing fleet readiness, morale, productivity, and retention. These factors will far outweigh any dollar savings from Smart Ship.

MEASURING CUSTOMER SATISFACTION OF DEPOT MAINTENANCE: AN ANALYSIS OF CUSTOMER SATISFACTION OF F/A-18 MAINTENANCE AT NAVAL AVIATION DEPOT NORTH ISLAND, CA

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The Department of Defense (DoD) spends about \$15 billion annually on depot level maintenance. About 60 percent of this funding is provided to government owned and operated depots. In light of defense budget downsizing, it has become more critical than ever that depots are run in the most efficient manner possible. DoD has tried to adopt a “best commercial practices” approach to improve efficiency of depot maintenance. A key focus of commercial practices is delivering customer satisfaction. To this extent, it is imperative that DoD depots understand and properly measure their customer’s concerns if they wish to improve their performance. An adaptation of the gaps model, developed by Parasuraman, Zeithamal and Berry in 1985, was used to measure the current customer satisfaction of the NADEP NI F/A-18 aircraft maintenance program. The gaps model measures differences between customer expectations and perceptions of performance of various attributes, and ranks the attributes by importance. A pretest questionnaire was developed and sent out to customers of NADEP NI’s F/A-18 aircraft maintenance program in order to evaluate alternative measures of customer satisfaction. Through this process, a tailored set of customer satisfaction measures was developed to provide better feedback to the depot management team and improve the depot maintenance process.

ROLES OF THE M1A1 TANK IN THE UNITED STATES MARINE CORPS

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This thesis analyzes the operations the Marine Corps’ M1A1 tanks could perform in support of the Marine Air-Ground Task Force (MAGTF). The research addresses the current and future capabilities of the M1A1 tank employed by today’s Marine Corps. Based on these capabilities, lessons learned from training and combat, and conclusions from working groups during the 1996 Armor Conference, analysis on the M1A1’s role in the Marine Corps are presented. This research and analysis satisfies the need, established during the Armor Conference, to articulate the capabilities of the M1A1 and the operations it could perform or support.

Numerous operations, such as Operations Other Than War and Military Operations on Urban Terrain, which the M1A1 is not currently conducting or supporting are discussed, with the recommendation that the M1A1 be employed in these operations to improve the combat power of the MAGTF. Emphasis is placed on the M1A1’s ability to conduct or support operations covering the full spectrum of warfare, from high-intensity conflicts to peacekeeping operations.

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TRENDS IN NAVY OFFICER ATTITUDES TOWARD THE “DON’T ASK, DON’T TELL” POLICY

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The current policy concerning homosexuals and military service, commonly called “Don’t Ask, Don’t Tell,” has been in place since 1994. The policy states that “homosexuality is incompatible with military service” and draws a distinction between sexual conduct and sexual orientation. Sexual orientation is considered a private matter and sexual conduct is an offense punishable by discharge from the military. The purpose of this thesis is to study trends in the attitudes of Navy officers toward homosexuals and officers’ understanding of the policy. The research approach was modeled after a 1994 thesis at the Naval Postgraduate School, and it involved two phases: a fifty-question survey distributed to all (approximately 800) Naval officers attending the Naval Postgraduate School; and focus group interviews to explore issues raised in the survey. The results suggest that officers are even more uncertain in 1996 than in 1994 about basic elements of the policy, and they tend to interpret the policy pragmatically, balancing mission requirements against individual needs. Additionally, most officers continue to hold negative opinions about serving with known homosexuals; however, the intensity of their feelings appears to be decreasing. It is recommended that officers attend annual training on the policy to ensure an even-handed approach in dealing with homosexuals. Further study of the policy is also recommended.

IMPLEMENTING THE SHOCK TRAUMA PLATOON IN THE REORGANIZATION OF THE MARINE CORPS MEDICAL BATTALIONS: RESOURCE AND TACTICAL IMPLICATIONS

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The United States Marine Corps is extremely dependent upon mobility for success. Evidence from Desert Shield/Desert Storm indicated that the structure of the Marine Corps Medical Battalions impeded this mobility. The Marine Corps reorganized the First and Second Medical Battalions within the Fleet Marine Force in 1995 to address this problem. This thesis provides an overview of the restructuring initiative. It indicates how Shock Trauma Platoons fit into the scheme of operating a mobile Health Service Support Element and provides insight into how the reorganization affects the Navy Health Care Continuum. Data was obtained from a review of documents obtained from Headquarters Marine Corps, Marine Corps Combat Development Command, Fleet Marine Force Manuals, and interviews with officials involved in the restructuring. The thesis concludes that the Medical Battalions have become more mobile and are likely to be able to provide the required mobile Health Service Support. It was also concluded that the Marine Corps will experience a monetary savings from the reorganization.

HEALTH CARE REFORM AND THE DEFICIT, 1993-1996

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Health care reform in the 103rd and 104th Congresses has run the gambit from extremely ambitious to less than ambitious undertakings. Proposals have engendered partisan debates, because of the scope and complexity of the issues involved and

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their implications for the federal deficit. Estimating the budget consequences of health care reform has become critical because of the strong link between health care programs and the growth in the deficit. This thesis examines the major health care reform proposals considered by Congress during the period 1993-1996. These included the comprehensive bills considered in response to President Clinton's proposed overhaul in 1993-94, the cuts included in the Republican-led balanced budget plan in 1995, and the Kassebaum-Kennedy Bill, which became law in 1996. In each case, the thesis examined the deficit situation facing Congress at the time health care reform was engaged, plans to address the deficit, and the impact of each health care reform on the federal deficit. Data was obtained from congressional reports and periodicals, journals and the Congressional Budget Office documentation. The major finding was that health care legislation which portends minimal impact on beneficiaries, providers, and the deficit is much more likely to succeed, while legislation which has a much broader effect will not receive the same support.

THE USE OF DOD MEDICAL ASSETS IN INTERNATIONAL HUMANITARIAN AND DISASTER RELIEF OPERATIONS

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The use of U.S. DoD medical assets in International Humanitarian and Disaster Relief Operations (IH/DRO) has been extensive in the past and has grown markedly since the end of the Cold War. It is important that DoD personnel understand the complex interagency coordination and political ramifications of their participation in IH/DRO. This thesis examines the history, current planning, interagency coordination, law, DoD doctrine, and budgeting issues affecting the use of DoD medical assets for IH/DRO. To research the current state of IH/DRO execution by the DoD, Federal laws, DoD doctrine, professional journals, and current periodicals were reviewed. Additionally, interviews were conducted with personnel in OSD, USCENTCOM, and the DoD medical community to obtain insight from recent participants in IH/DRO. Research indicated that three levels of control, coordination, and planning exist within the U.S. government to conduct IH/DRO. The strategic level consists of the U.S. Congress, the NCA, USAID, and the Joint Chiefs of Staff. The operational level consists of the Unified Combatant Commands, who conduct contingency planning for their Areas of Responsibility (AOR). Finally, the tactical level consists of the Joint Task Force (JTF) stood up by the Unified Combatant Command to execute the operation. Doctrine to execute these operations is lacking and acknowledged by DoD Doctrine Commands, who are working to address this shortcoming. The current command and coordinating structure documented in this thesis is in a dynamic state of evolution and development as the DoD strives to meet the demands of IH/DRO in a downsizing military.

ASSESSMENT OF DEPARTMENT OF DEFENSE REINVENTION LABORATORIES

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This thesis examines improvements in business practices accomplished by Department of Defense (DoD) Reinvention Laboratories. DoD goals for the National Performance Review and accomplishments are analyzed. DoD incorporation of entrepreneurial government ideas of restructuring, reengineering, reinventing, realigning, and rethinking are evaluated. Over \$16.4 billion in financial savings achieved through increased efficiency are described. In particular, lessons learned from successful and unsuccessful initiatives presented at the initial DoD Reinvention Laboratories Symposium are analyzed.

Key leadership practices instrumental to successfully achieving reinvention goals, include creating total commitment and a sense of urgency, communicating a vision, establishing clear goals, and plans for action, overcoming obstacles with persistence, measuring performance, recognizing people, and institutionalizing continuous improvement. The following

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barriers to implementing reinvention are identified: absence of top management support, no single DoD point of contact to guide reinvention, no clearly defined DoD waiver processes, insufficient financial resources, lack of knowledge and training on reinvention procedures, poor communication on goals and means, and cultural resistance to change.

Further research to document continued reinvention progress and to measure performance is recommended. This thesis identifies efficient business practices implemented in laboratories, and barriers that must be overcome to successfully accomplish reinvention objectives.

IMPLEMENTATION OF ELECTRONIC COMMERCE IN THE DEPARTMENT OF DEFENSE AND THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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President Clinton's Executive Memorandum of 26 October 1993 mandated that all Federal Government agencies implement Electronic Commerce (EC) in order to "simplify and streamline the purchasing process."

Two agencies, the Department of Defense (DoD) and the National Aeronautics and Space Administration (NASA) employed divergent strategies and policies in implementing the President's Memorandum. DoD pursued a strategy using an existing DoD Electronic Commerce/Electronic Data Interchange (EC/EDI) architecture. NASA employed an Internet-based tool, the NASA Acquisition Internet Service (NAIS), as the cornerstone of its EC program.

This thesis examines the unique approach each agency employed, analyzing organizational theory and other influential factors to explain why two Federal agencies chose to implement such different strategies.

RE-ENGINEERING THE PLANT PROPERTY INVENTORY MANAGEMENT PROCESS WITHIN NAVAL MEDICAL TREATMENT FACILITIES

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This research evaluates the plant property inventory management process and recommends solutions that would enable accurate accountability of plant property within Navy medical treatment facilities (MTFs). It provides a standard set of revised plant property management procedures to assist local activities' comptrollers and equipment managers with day to day operations and to also meet the external requirements of two public laws: Public Law 103-356 and Public Law 101-576, requiring updated financial management and accurate, timely reporting operations.

The revised process presented in the thesis incorporates internal controls, quality check points, and a standardized format to ensure information accuracy and timeliness. The primary recommendation is to have Bureau of Medicine and Surgery incorporate the revised plant property management process as a claimancy-wide instruction or directive for all Medical Treatment Facilities' (MTF's) to follow.

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DIVERSITY TRAINING IN THE UNITED STATES MARINE CORPS

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In recent years, the Marine Corps has become a very racially, ethnically, religiously, and gender diverse organization, and demographic trends indicate that this diversity will become even more pronounced in the future. Such diversity can have a strong, positive influence on productivity. This thesis examines problems the Marine Corps has had in accepting diversity within its ranks, analyses the Marine Corps' plans for addressing diversity issues now and in the future, and evaluates several coalition building workshops for their applicability to the Marine Corps. A literature review on diversity issues such as power, privilege, social conditioning, and racism is combined with the results of a survey of Navy and Marine Corps officers who participated in a graduate-level seminar on managing diversity in the military and with workshop assessments to develop a plan for diversity training in the Marine Corps. This plan incorporates highly interactive exercises, role-playing scenarios, personal experience, enlightened lectures, and other forms of instruction consistent with Adult Learning Theory to offer the Marine Corps a better chance of creating a cultural change around diversity issues. This training program should be facilitated by highly trained and dedicated instructors and it should be taught at career-level schools where small groups of racially, ethnically, and gender diverse students can learn in a peer environment. This program must be given the same degree of attention as other important factors affecting readiness.

ANALYSIS OF SMALL BUSINESSES' PERSPECTIVE ON THE ELECTRONIC DATA INTERCHANGE ACQUISITION REFORM

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This thesis examines small business' perception of utilizing Electronic Data Interchange (EDI) as a means to conduct business. The general concept and history of EDI is discussed along with a synopsis of current Government EDI systems in use. The results of two surveys are analyzed to provide an insight on the effect the Federal Acquisition Streamlining Act is having on small business' opportunity to obtain Government Contracts. Additionally, interviews were conducted with several Government personnel to get their opinions on the progress of EDI in the workplace.

The major conclusion drawn is that the majority of small businesses are willing to utilize EDI as a means to conduct business. But in its current form (i.e., FACNET) small businesses find it difficult to use and too expensive. The need to use a simpler and more cost-effective means is necessary to ensure that all small businesses have the opportunity to compete for Government contracts without cutting into their profit margins.

EVALUATION OF THE YOKOSUKA BASE FOR THE U.S. NAVY PACIFIC FLEET OPERATION

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This research concerns evaluation of the Yokosuka base for the U.S. Navy Pacific Fleet operation. The research focused on fleet operating costs and required fleet assets for a given level of operation. In particular, what value in terms of fleet operating costs and assets does the United States receive using the Yokosuka base to deploy its fleet in Asia were examined.

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A computer model was developed to evaluate this benefit and compared the differences in operating costs and required fleet assets between the Yokosuka base and other bases such as Guam and Hawaii.

AN ANALYSIS OF DEPOT LEVEL MAINTENANCE FOR THE H-60 HELICOPTER UNDER AN INTEGRATED MAINTENANCE CONCEPT

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This thesis examines the depot maintenance processes of Naval H-60 helicopters. Budget and political climate issues are discussed. Aircraft Service Period Adjustment (ASPA) deferral rates, Standard Depot Level Maintenance (SDLM) turn-around time, depot maintenance direct labor and material costs, and projected backlog using depot requirements and funding are examined. Data analysis indicates a need for significant process improvements or radical changes to depot processes. The Integrated Maintenance Concept (IMC) will consolidate organizational and depot level maintenance at fleet locations. IMC offers several advantages over traditional depot maintenance methods. Using regression analysis, the direct costs of SDLMs conducted at the Pensacola Naval Aviation Depot from 1987 to 1995 were used to estimate direct costs of depot maintenance based on: aircraft age, the projected level of depot maintenance, and employment (operational versus training). Within the scope of this research, a weak correlation existed between the direct labor costs and aircraft age and employment as explanatory variables; direct material costs showed a higher correlation; for total direct costs, these two variables explained 34.4 percent of the variation. Incorporating additional explanatory variables, such as flight hours prior to SDLM, may improve the model. Finally, recommendations are made to facilitate the transition to Integrated Maintenance, emphasizing data collection requirements and data analysis techniques to better estimate maintenance and funding requirements.

THE EVOLUTION OF THE MILITARY HEALTH CARE BENEFIT (MHCB): THE SCOPE OF THE CHANGES AND THE PRINCIPAL DRIVERS BEHIND THEM

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This thesis examines the evolution of the Military Health Care Benefit (MHCB) and the principal factors that influenced its change. The Military Health Care Benefit is a critical part of the compensation package received by the military member. A detailed examination of United States Code, Title 10, along with congressional hearings, committee reports, legislative bills and external organizational literature was conducted. The congressional process for modifying the MHCB is explained, followed by identification and description of the major legislative changes to the MHCB between 1956 and 1996. Research revealed that the scope of the MHCB has dramatically increased since 1956. Three distinct periods of congressional action were identified. The first, 1956 to 1966, was characterized by establishment of the benefit structure and its initial expansion. The second, 1967 to 1982, was a "status quo" era in which Congress focused its attention on controlling the rising costs of CHAMPUS. The final period, 1983 to 1996, was dominated by congressional oversight, leading to further expansion of the MHCB and the development of Managed Care programs. Equity with private sector or other government sponsored health care programs was the primary factor in the growth of the MHCB. Understanding the process used to change the Military Health Care Benefit and the principal factors that influence this change allows planners an insight into possible future changes in military medical benefits and their associated costs.

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COST AS AN INDEPENDENT VARIABLE IMPLEMENTATION ISSUE

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This thesis will examine challenges defense department managers face when implementing the cost as an independent variable (CAIV) concept of cost control. The CAIV concept replaces the design-to-cost (DTC) concept which only achieved limited success. Emphasis is placed on identifying issues that managers faced implementing the DTC concept. These issues are analyzed to determine the potential cause of the issue and the impact the issue may have on programs implementing CAIV.

It is the contention of this thesis that the CAIV concept and the DTC concept are in theory, virtually identical. Many of the same issues will surface during CAIV implementation that managers faced implementing DTC. CAIV may become another ineffective cost control measure. However, DTC was not usually implemented as intended by the guidance. In addition, acquisition reform has provided the manager implementing the CAIV concept significant advantages over previous managers. With full management support, programs implementing the CAIV concept can succeed and provide cost effective systems that meet the needs of the user.

COST/BENEFIT ANALYSIS OF INTERACTIVE COURSEWARE

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This purpose of this thesis is to present a cost/benefit analysis of different Interactive Courseware (ICW) packages available for use at Fleet Anti-Submarine Warfare Training Center (FLEASWTRACEN), San Diego, CA.

Data was gathered from interviews with the current users of ICW software at FLEASWTRACEN and at Goodfellow Air Force Base in Texas, interviews with companies that develop authoring systems, and information available on the Internet. Data was also gathered from information received from software companies and reports and memorandums available at FLEASWTRACEN. The goal of this thesis was to identify a cost-effective product that not only met the current training requirements at FLEASWTRACEN, but also one that would be able to expand and grow to meet their future requirements.

The nature of the pricing of the ICW software did not allow for a "strict" cost versus benefit analysis. Since the costs vary depending on both the capabilities of the software package and the economic benefits received by the customer (which are "soft" and difficult to measure), the analysis focused on identifying a product that required minimal investment in additional hardware and/or software requirements. Based on evaluation of the research data, recommendations are presented for future acquisition of ICW software.

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AN ANALYSIS OF USING INTELLIGENT DIGITAL DATA TO REDUCE THE SPARE AND REPAIR PARTS INVENTORY FOR THE NEW ATTACK SUBMARINE (NSSN)

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Both the defense and commercial industry sectors are increasingly moving to automated manufacturing as a means to reduce costs and increase efficiency and quality. The Navy can leverage both the capabilities as well as the benefits of this technology application. For example, the acquisition of intelligent digital data in support of the new weapon systems has the potential to render a percentage of the Navy/DLA parts inventory as "virtual." This inventory would exist in "effect" but not in actual form until required. The Navy has developed and demonstrated the capability to use intelligent digital data to manufacture no-longer-available parts in a timely and cost-effective manner. The application of this technology is a natural complement to the advanced technology in computer-aided design and manufacturing incorporated in the Navy's newest weapon systems under procurement, specifically, the New Attack Submarine. This thesis presents an analysis of the application of this technology. There exists a market for this technology application as demonstrated by the intelligent digital data candidate parts analysis conducted during this investigation. As a result of this analysis it was determined that the Navy can conservatively save \$503 million over the life cycle of the New Attack Submarine by the applying the use of intelligent digital data.

PERSONNEL PLANNING IN THE MEDICAL SERVICE CORPS: A TRAINING GUIDE FOR HEALTH CARE EXECUTIVES

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During the past decade the Medical Service Corps (MSC) has undergone a myriad of changes. The most challenging change has been the pressure to downsize while maintaining an appropriate force structure to enable it to support two nearly simultaneous major regional conflicts as mandated by the Defense Planning Guidance. While the MSC has cogently developed requirements led measures to ensure that they can support its operational and peacetime requirements, the process of personnel planning has evolved to ensure that the proper number and mix of MSC officers are available. This thesis examines the current state of personnel planning in the Medical Service Corps. Of particular interest is to identify the various organizations involved in personnel planning and how Navy Medicine uses its personnel plans to meet its readiness and peacetime missions. The three personnel plans used by the Medical Service Corps: (1) End Strength, (2) Accession, and (3) Promotion, are used to ensure that the Medical Service Corps has on active duty the right number of officers, at the right grade at the right time. This thesis will identify and discuss the role various organizational entities have on the development of these personnel plans. Results from this research indicate that a more formal communication process and improved database management would greatly assist the Medical Service Corps in improving the effectiveness of personnel planning.

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THE TRI-BAND SATELLITE TERMINAL: A CASE STUDY IN ACCELERATED ACQUISITION AND PROGRAM MANAGEMENT OF ARMY COMMUNICATIONS SYSTEMS

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The Super High Frequency Tri-band Tactical Satellite Terminal (AN/TSC-143) is a multi-channel tactical satellite communications terminal that allows information to flow between major headquarters within the operational theater and the continental United States. The AN/TSC-143 program used an accelerated acquisition strategy which implemented the concepts of teaming, tailoring, concurrency, and Electronic Bulletin Board (EBB) to accelerate the process. The program successfully reduced the Procurement Administrative Lead Time (PALT) to 72 days, but many other challenges had to be managed during the procurement of this communications system. This case study examines the acquisition environment surrounding this procurement. The case study illustrates the differences between the typical acquisition environment and the communications systems acquisition environment. It also provides valuable insight into developing an acquisition strategy for similar programs.

THE INCREMENTAL COST OF F/A-18F NAVAL FLIGHT OFFICERS

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This study was undertaken to estimate the number of required Naval Flight Officers (NFOs) and their associated costs resulting from the decision to shift from the F/A-18E to the F/A-18F as the replacement for the F-14. It addressed the analytical issues associated with determining the additional personnel requirements and their costs.

The dynamic method developed in this study not only considers the NFOs in the operational squadrons, but also includes all NFOs in the rotation base that are required to implement this decision. In addition, it considers the dynamics of change that will occur over time as F-14 NFOs transition to the F/A-18F. This dynamic method, rather than the current static method, provides a better estimate of the direct personnel costs associated with the implementation of an alternative. The improved estimate of costs could be an important part of a cost-effectiveness analysis.

This study recommends that the Navy continue to refine the methods of estimation developed in this study. A refined version of this method could provide future decision-makers with improved estimates of personnel requirements and their costs.

ANALYSIS OF NAVAL ORGANIZATIONS WITHIN MARITIME NATIONAL INTERESTS: THE CASE OF COLOMBIA

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This thesis examines the Colombian Maritime Authority and the Colombian Coast Guard Service using relevant constructs from strategic management and organizational theory. The research uses the Nuechterlein matrix concepts in basic national interests combined with the results of a survey to analyze the maritime mentality of Colombia. The thesis applies a Dynamic Systems Model and finds that common parameters are used in maritime organizations to manage maritime activities.

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The study draws on comparative analysis of the contexts and organizational designs of foreign maritime organizations. Results indicate that Colombia does not include maritime national interests in its priorities of national interests. Survey results suggest that Colombia's management of maritime activities has only partially developed due to the complexity of the Nation-State's political and cultural environment. The study also identifies overlapping functions and redundant efforts within the two Colombian organizations. It explores the possibility and likely consequences of restructuring the two organizations, given Colombian maritime national interests and thus provides alternatives to maximize the management of maritime activities. Recommendations for further research are included.

FORMATIVE EVALUATION OF THE TACTICAL PATROL CRAFT TRAINER: A COMPUTER-BASED TRAINING EVALUATION

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This thesis describes the formative evaluation of the Tactical Patrol Craft Trainer (TPCT) during the implementation stage. The TPCT is an interactive multimedia computer-based trainer designed to deliver a full fidelity and analog video training scenario to Prospective Commanding Officers (PCOs) of the Coastal Patrol Craft (PC) class ship. The system is designed to induce stress while enhancing autonomous decision-making skills. The methodology involved six survey instruments, observation, and interviews with the trainees. The data show that the TPCT induces stress as intended, the user interface is appropriate, and the trainees perceived the training as valuable. Several improvements are noted in the course structure, user-interface, and system application. Recommendations are made for more scenarios, additional applications of the technology, and evaluation of training effectiveness after the final implementation of the system.

THE EVOLUTION OF MILITARY HEALTH SERVICES SYSTEM WARTIME MANPOWER REQUIREMENTS GENERATION: FROM THE MEDICAL PLANNING MODULE TO THE MEDICAL ANALYSIS TOOL

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Major changes in post-Cold War strategy led to changes in force structure, missions, and anticipated casualty rates and challenged the basic assumptions that are fundamental to the process of military medical readiness planning. The Military Health Services System (MHSS) sought to refine its wartime medical requirements in order to identify the medical forces required to support the new strategy. This thesis explores the process used to determine wartime medical manpower requirements within the MHSS, explores the evolution of medical requirements planning models from the Medical Planning Module (MPM) to the Medical Analysis Tool (MAT), and provides a comprehensive analysis of the models. Documents reviewed for this thesis include reports from DoD, GAO and Congress, congressional testimony, studies conducted by think tanks including the Rand Corporation and the Center for Naval Analysis, and pertinent DoD directives and manuals. Additional data were obtained through interviews with key officials involved in the development and implementation of the MAT, particularly the Director for Logistics J-4, Medical Readiness Division, and the primary contractor developing the MAT, Booz-Allen Hamilton. The conclusions of this research are that the MPM is inflexible, inaccurate, incompatible with current technology and planning factors, and not user-friendly. The MAT is more flexible, accurate, compatible with current technology and planning factors, and user friendly than the MPM and is the best alternative for replacing it.

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ANALYSIS OF DEPARTMENT OF DEFENSE (DOD) OVERSEAS SHIPMENT OPERATIONS TO JAPAN

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The objective of this thesis is to document, evaluate, and recommend process improvements for transporting fresh produce product lines from the United States to mainland Japan. This thesis reviewed existing processes and strategies currently in effect for shipping fresh produce to Department of Defense (DoD) installations and other U.S. federal agencies in Japan.

The shipment of fresh fruits and vegetables (FF&V) is examined in detail, since they pose the most difficult logistical challenge. Aside from the issues associated with shipping perishable products overseas, there are political and cultural issues that are examined as well.

The entire process, from customer requirement order to delivery of product to destination is documented and analyzed. The current strategy and methods of purchasing, shipping, and distributing FF&V to resale customers in Japan is analyzed, with recommendations for improvement, if applicable.

A process management and decision chart of the entire process is developed, in hopes of providing a decision matrix that will apply to all shipments destined for mainland Japan, and possibly to other Pacific Rim destinations. Lessons learned and further research are identified that may be applicable to other destinations in the region.

DEVELOPMENT OF AN ACTIVITY-BASED COSTING MODEL FOR IMPLEMENTING CAPITATION AT NAVAL MEDICAL CENTER SAN DIEGO

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The purpose of this research is to develop a financial model for Naval Medical Center San Diego for the calculation of an appropriate capitation rate under capitation budgeting. The current cost accounting system at Naval Medical Center San Diego and records of the Military Expense and Reporting System and the Uniform Management Report were analyzed to determine their usefulness in providing the information for and implementing capitation budgeting. An accounting model based on the principles of activity-based costing was used to develop a financial model and was applied to the current accounting system at Naval Medical Center San Diego.

The research showed the current accounting system used at Naval Medical Center San Diego and the Military Expense and Reporting System and the Uniform Management Report do not provide the needed financial information for the calculation of an appropriate capitation rate. The accounting system will need to be realigned to identify expenses by activities versus cost categories. The analysis done for this thesis indicates that activity-based costing can provide a more accurate measure of the cost of services (outputs) and facilitate in the calculation of an appropriate capitation rate for Naval Medical Center San Diego.

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CAREER INTENTIONS OF JUNIOR UNRESTRICTED LINE NAVAL OFFICERS

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The purpose of this thesis was to investigate the factors affecting the career intentions of junior unrestricted line (URL) naval officers. Data were taken from the 1992 DoD Survey of Officer and Enlisted Personnel and their Spouses and were matched with the 1996 Active Duty Military Master File by the Defense Manpower Data Center. The sample was restricted to Navy URL officers in pay grades O1-O3, within their minimum service requirement. The data were divided into three sets: single male officers, married male officers, and female officers. A conceptual model was developed which grouped explanatory variables of career intentions into three broad categories: personal, internal work related, and external work related. A multivariate logistic model was estimated for each data set to determine the relative importance of these variables on an individual's intent to make the Navy a career. Results indicated that the factors influencing career intentions differ between male and female officers and married and single officers.

RETENTION OF FIRST-TERM AND SECOND-TERM MARINE CORPS ENLISTED PERSONNEL

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The purpose of this thesis was to investigate the factors affecting the retention behavior of first term and second term Marine Corps enlisted members. Data were extracted from the 1992 DoD Survey of Officer and Enlisted Personnel and their Spouses and were matched with the respondents' 1996 status from the Active Duty Military Master and Loss File by the Defense Manpower Data Center. The sample was restricted to Marines with between two and ten years-of-service who had less than two years remaining on their enlistment contract and was further stratified by term of enlistment and gender. A complete conceptual model was developed which incorporated individual and organizational factors affecting retention. Four categories of determinants of turnover were used: Demographic, Military Experience, Cognitive and External. Logistic regression was used to measure the relative importance of a broad range of these factors for the retention decision. Results indicated that the factors affecting retention differ across term of service and by gender. No single factor was significant for all gender/term of service samples. Some factors were significant only for a particular term of service. Others were significant only by gender and many were significant only for a single sample. The specific findings can provide manpower planners with targeted information to manage retention levels for first term and second term Marines more effectively.

CHANGES AND TRENDS IN SMALL DISADVANTAGED BUSINESS (SDB) PROGRAMS

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Since the late 1960s, it has been the policy of the Federal Government to support the development of small disadvantaged businesses (SDBs) owned and controlled by minorities and women. However, as a result of the current controversy over the proper role of affirmative action and the recent Supreme Court's landmark decision in the *Adarand Constructors, Inc. v. Peña*, which challenged a Federal program that provided cash bonuses to prime contractors for awarding subcontracts to minority-owned businesses, Federal SDB set-aside programs are facing uncertain future. Both the Clinton Administration

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and 104th Congress are currently reviewing the Federal affirmative action programs and have proposed various legislative proposals and programs that would meet the constitutional standards set forth in the *Adarand* decision. One of the objectives of this thesis is to analyze the major Supreme Court decisions, currently ongoing challenges to set-aside programs and political environment that have had a profound influence in shaping the Federal Government's SDB programs. This research also analyzes the latest legislative proposals and programs that are being developed to withstand the standards set forth in the *Adarand* case. This study recommends a consolidated single piece of legislative proposal that can best serve the public in promoting small disadvantaged businesses.

BIDDING FOR CONTRACT GAMES: APPLYING GAME THEORY TO ANALYZE FIRST PRICE SEALED BID AUCTIONS

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This study analyzed the first price sealed bid auction (FPSBA) using computer simulations. The first price sealed bid auction is a static Bayesian game with incomplete information. These games have a well-defined symmetric Bayesian Nash equilibrium. The existence of the equilibrium makes it possible to find the bidders' equilibrium strategies. The equilibrium strategy maximizes the bidders' profit. This thesis assumes, (1) the bidders act rationally and have private information about their production cost, (2) the bidders' preferences and information are symmetric, and (3) the buyer is committed not to deviate from the auction rules, even if a deviation would be profitable. Considering these assumptions and the equilibrium strategy, this thesis constructed a FPSBA model. The model was transformed into an algorithm and coded in Visual Basic language. The code was used to simulate the FPSBA in different scenarios. The simulation showed the bidders' behavior and identified factors affecting the bidders' decision during bid preparation. Critical factors include the cost distribution and number of bidders. The concluding chapter presents the analytical results.

A STUDY OF THE CHINESE RELATIONSHIP ACROSS THE TAIWAN STRAIT

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This is a study of the relationship across the Taiwan Strait. The relationship between the Republic of China (ROC) on Taiwan and the People's Republic of China (PRC) on Mainland China is not only important to the two governments, but also is important to the world community. After an overview of the historical background and the political policy development of each side toward each other, this thesis points out the ROC and the PRC's current strategies in terms of their cross-Strait relation. Further, it examines four factors in the future development of their cross-Strait relationship; namely international politics, the PRC's stability, the ROC's public opinion of Taiwan independence, and interactions between both sides. Finally, the author provides conclusions and recommendations on how to improve the future relationship between the PRC and the ROC. The four primary recommendations are: adopting a concept of "soft sovereignty," implementing more pragmatic consultations, increasing exchanges, and creating mutual trust.

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INVENTORY OPTIMIZATION OF CLASS IX SUPPLY BLOCKS FOR DEPLOYING U.S. MARINE CORPS COMBAT SERVICE SUPPORT ELEMENTS

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Combat Service Support Elements (CSSEs) for the U.S. Marine Corps deploy with a limited number of spare parts to keep the fighting unit at its highest level of readiness. Items that are requested by the unit, but not carried by the CSSE, are backordered, resulting in lower readiness and additional transportation costs. It is shown how to determine which items the CSSE should take, and in what quantities, to best support a fighting unit. The model was tested on data from a recently deployed Marine Expeditionary Unit (MEU), and the results suggest that the MEU could have experienced 13 percent fewer backorders and saved \$11,007 in shipping costs by using the model.

NAVY PERSONNEL WITH IN-SERVICE CRIMINAL RECORDS: CHARACTERISTICS OF OFFENDERS AND CAREER IMPLICATIONS

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National attention has been focused on the criminal offenses of Navy members while on active duty. This is due to recent incidents such as the rape of a young woman in Okinawa and the discovery of a military drug ring in Europe. Little is known about the characteristics of individuals who engage in criminal activity while on active duty or the effects of a member's criminal acts on his or her retention in the naval service. This thesis seeks to gain information on the characteristics of in-service offenders and to assist in designing improved enlistment standards and/or improved retention criteria. The Navy Enlisted Cohort file was merged with a Navy Criminal Investigations Service (NCIS) data file of enlisted personnel with serious in-service criminal investigations. The merged files were used to compare two groups of enlisted personnel: persons with serious in-service criminal investigations and the population of enlisted personnel without serious in-service criminal records. The study found: 1) offenders are considerably more likely to be discharged for failure to meet minimum behavioral performance criteria than for the offenses they commit and 2) current enlistment screening methods are not effective in identifying future in-service offenders. The study recommends that a consolidated database be developed to incorporate all information on in-service criminal activity. The database should include cases of Command Court Martial, detainment and arrest by Base Police, and cases adjudicated by civilian authorities as well as cases that are NCIS reportable.

IMPROVED MAINTENANCE AND READINESS THROUGH THE USE OF BUILT IN TEST (BIT) IN THE FIRE CONTROL SYSTEM OF THE MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)

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As the Army continues to face force and budget reductions while maintaining a high state of readiness, reliance on advanced technology systems is becoming more essential. The Army's leadership has recognized this challenge and is seeking ways to ensure readiness.

This thesis explores the application of the built in test (BIT) maintenance concept in supporting readiness in the Fire Control System (FCS) of the Multiple Launch Rocket System (MLRS). It provides background on the current Fire Control

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System and discusses factors both internal and external to the system that are driving the upgrade. Projected benefits gained from BIT are in terms of readiness through reduction in Mean Time To Repair (MTTR), cost savings, and compression of the maintenance levels. Application of BIT into other systems is covered.

BIT is one method currently being developed to maintain and improve readiness despite continued force and budgetary reductions. The goal of this thesis is to show how technology can be used to support readiness by increasing efficiency while minimizing costs.

THE EFFECTS OF MARRIAGE ON THE COHESION OF FLEET MARINE FORCE UNITS: AN OFFICER'S PERSPECTIVE

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This thesis examines the perceived effects of marriage on the cohesion of Fleet Marine Force units. Focused interviews were conducted with 25 Marine officers. All interviews were audio taped and then transcribed. Analysis of the transcripts revealed 11 general themes. These themes covered many topics, including how spouses affect Fleet Marine Force units, the connection between living in barracks and cohesion, the contrast between single and married Marines, and the judgment of junior enlisted Marines concerning marriage. A major finding drawn from the themes is that the Marine Corps must continue to strive for a deeper understanding of the relationship between marriage and cohesion and how the relationship affects Fleet Marine Force units.

THE DEVELOPMENT OF A READINESS MODEL FOR MILITARY CONSTRUCTION (NAVY) INFRASTRUCTURES

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As facilities throughout the Navy's infrastructure system degrade and require replacement, and as new missions require additional facilities, it is crucial that each facility approved will in turn improve an activity's ability to perform its mission. The central objective of this study was developing a method of predicting how new projects affect both an activity's and its major claimant's ability to succeed in their missions and to incorporate this prediction into the approval process. Research was conducted to determine how Naval Facilities Engineering Command (NAVFAC) currently approves construction projects and how additional information about an activity's facility condition, available in existing databases, could assist the approval system. The major development was an infrastructure readiness model that assesses the condition of each mission essential facility. From this condition assessment, the model attempts to predict how new construction projects or renovations at each activity will improve an activity's and its major claimant's current facility condition. Projects are then ranked in order of infrastructure readiness improvement. By using this model in conjunction with the current approval system, NAVFAC can determine whether activities and major claimants are requesting projects that improve both their infrastructure condition and their ability to complete their assigned missions.

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A STUDY OF INTRANET IMPLEMENTATION FOR THE REPUBLIC OF CHINA NAVY

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An intranet is a computer network based on the data communication standards of the World Wide Web. These standards can contribute to enhance communication, collaboration, and information distribution within the organization. The adoption and implementation of this technology by industry has been swift, and broad, as organizations have quickly recognized the benefits to be realized from this technology for new organizational networks.

This study presents a review of the Republic of China Navy's (ROCN) future intranet implementation and its potential applications. The first three chapters address the characteristics of intranet technologies, its pros and cons, its implementation issues, and the impact of the technologies on the Republic of China Navy Headquarters. The current information technology environment of the Republic of China Navy is reviewed. Some potential intranet applications are discussed in the Chapter IV. Recommendations are presented in the last chapter. These recommendations include more emphasis on information technology education in the ROCN. The overall conclusion of the study is that the ROCN leadership should embrace information technology at the highest level. Without a good implementation plan to manage and predict the growth of the information technology the Republic of China Navy will fail to realize this resource in the future.

OUTSOURCING: SHORT-TERM COSTS AND HUMAN RESOURCE ISSUES

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OMB Circular A-76 provides guidance for estimating the cost of commercial activities that are candidates for outsourcing. The benefits of outsourcing commercial activities are greater efficiency, better service, and reduced costs. However, DoD has experienced modest success outsourcing its commercial activities. This study exams DoD's limited success outsourcing commercial activities. Research was conducted by: studying the requirements of OMB Circular A-76; conducting interviews with comptrollers, base commanders, and human resources personnel; reviewing pertinent United States Codes and Codes of Federal Regulations; and reviewing court rulings establishing legal precedence. Outsourcing has experienced limited success due to DoD's reluctance to rely on inorganic assets, resistance from Congress and the executive branch, public-employee union criticism, improper incentives for Base Commanders, prohibitive short-term costs, and cumbersome A-76 requirements. To realize the benefits of outsourcing DoD must: fund programs that encourage volunteer separation, provide training for employees who complete the A-76, provide activities incentives to complete the process, fund outsourcing's short-term costs, fund staffs trained to handle outsourcing's human resources issues, seek modification of current bumping and retreating policies and streamline A-76 Circular requirements.

SUSTAINMENT SUPPORT FOR NAVAL CONSTRUCTION FORCES OPERATING WITH MARINE AIR-GROUND TASK FORCES

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This thesis examines how Naval Construction Forces (NCFs) Operating with Marine Air-Ground Task Forces (MAGTFs) receive sustainment support. Restructuring of the military forces, in particular the Marine Corps engineer units, has resulted

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in an increase in the mission-dependent general engineering support that the Seabees provide to MAGTFs. The Seabees have developed a robust initial sustainment capability that serves them well in independent operations, but that can be a significant liability when operating with MAGTFs. This thesis analyzes the impact this robust sustainment capability has on the Seabees when they deploy in support of MAGTFs in terms of mobility and footprint. The research shows that elimination of initial sustainment material from the Seabees can reduce the Aircraft Load (ACL) requirements for the four Navy Mobile Construction Battalions (NMCBs) notionally slated to support a Marine Expeditionary Force (MEF) by more than 46 C-141B ACLs. Additional savings can be realized by realigning the medical capability of the NMCBs to a configuration similar to a comparable Marine Corps engineer unit. This reconfiguration would save weight and space as well as allow the NCF to eliminate almost \$5 million in medical equipment from its NMCBs.

OUTSOURCING FACILITIES MANAGEMENT: A COMPARATIVE ANALYSIS BETWEEN THE PRIVATE SECTOR AND DEPARTMENT OF THE NAVY

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Because of a level DoD budget and the need to modernize the force, DoD is seeking ways to shift some operation and maintenance (O&M) dollars into procurement programs. One way to do this is through outsourcing.

This thesis compares the costs of performing facility management functions within the Navy at NAS Miramar and of outsourcing these functions (to private contractors at NAS Fallon). The purpose is to determine if a significant cost difference exists between the two bases. Actual facility management costs were obtained from both NAS Miramar and NAS Fallon for fiscal years 93-96. An area adjustment was made to the cost data at Fallon because of the higher cost of living in San Diego compared to Fallon, Nevada. The thesis also addresses how the Navy deals with nonfinancial factors, such as quality and performance, in an outsourcing situation.

The areas studied in facilities management include the operation and maintenance of buildings, utilities, and vehicles; maintaining environmental quality; administration and formulation of contracts; and management support. The study found outsourcing was cheaper in three areas, in-house was cheaper in five, and the cost were similar in one area over a 4-year period.

INTERNET AT SEA FOR THE HELLENIC NAVY

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The Hellenic Navy (HN) is confronted with a set of mission-related challenges that can not be efficiently supported by existing information systems. However, the transition to more modern information systems needs to fulfill a basic principle of command and control, "unity of purpose." This thesis uses the unifying concept of information architectures to identify some desired characteristics for future HN information systems. Two real-life projects are reviewed to substantiate the analytical suggestions borrowed by the client-network, or network-centric architectural paradigm. The "SeaNet" project is used to show the feasibility and utility of extending internet technologies to the maritime environment. The "Baffle Force e-mail" project is presented as a pilot program for the introduction of TCP/IP based data exchange between units at sea. In the concluding chapter, a set of recommendations is made for the transition to a network-centric information architecture for the Hellenic Navy and the development of internetworking capabilities over seawater.

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NAVY INVENTORY MANAGEMENT DECISION-MAKING
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The General Accounting Office (GAO) has stated that the Department of Defense (DoD) believes it is better to overbuy inventory items than to manage with just the right amount of stock. This thesis asserts that Navy inventory managers do not have a general tendency to overbuy items, but rather make rational purchasing decisions influenced and motivated by the environment of rewards and penalties in which they work. It is also asserted that Navy inventory managers are risk adverse due to the nature of their environment. Personal stockout costs are examined as one of the key factors influencing decision-making and risk adverse behavior. This thesis introduces a conceptual model that describes the Navy inventory management decision-making environment. This model shows the relationship between personal stockout costs, required service levels, cost considerations, and planning horizons across the different decision-making levels in the Navy. This study concludes that readiness-based performance measures must be changed to incorporate a cost focus, and that the risk facing inventory managers due to personal stockout costs needs to be reduced to change their behavior if lower inventory levels are desired.

MANAGING DIVERSITY IN THE UNITED STATES NAVY
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Diversity management has become a strategy used by many organizations and management practitioners in recent years. The goal is to ensure that all people are respected, and valued, and that their talents are fully utilized within the organization. Organizational strategies incorporating total systems change are being used widely to accomplish the objective. This thesis seeks to develop a "managing diversity" program for the Navy. It reviews the approaches used by private and public organizations to manage diversity. This thesis also evaluates new approaches by diversity management practitioners and organizations. It is recommended that the Navy commit to organizational change utilizing a total systems change approach, which affects the individual, interpersonal relationships, the organization's systems, policies and practices, and the culture of the organization. The total system must be addressed to effectively sustain managing diversity in the U.S. Navy.

**THE STATE-OF-THE-ART OF PROPRIETARY FINANCIAL
REPORTING IN THE DEPARTMENT OF THE NAVY**
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With the enactment of the Chief Financial Officers (CFO) Act of 1990, the Department of the Navy (DoN) is required to produce proprietary financial statements for fiscal year 1996 and beyond. Proprietary financial reporting focuses on the creation, management, and use of all resources (assets) of an organization, not just on expendable funds. This thesis provides a comprehensive overview of the state-of-the-art of proprietary financial reporting in the DoN. To address this issue, a review of the laws, policies, and agencies which effect proprietary reporting was conducted, along with a comparison

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between Federal government and private sector financial reporting. An analysis of the form and content of the primary proprietary reports, the Statement of Financial Position and the Statement of Operations and Change in Net Position, and an analysis of the information systems, which are used to gather the data, was conducted. The DoN is operating in a time of expanding requirements with limited resources. This review of proprietary financial reporting in the DoN has shown that the statements required by the CFO Act can be produced. However, the deficiency of the information systems, which affect the accuracy of the data, combined with inadequate performance measurements, lessens the current value of the proprietary financial statements.

CHANGES NEEDED IN DOD'S INCENTIVE AND REWARD STRUCTURE TO AFFECT INVENTORY REDUCTIONS IN DOD INVENTORY LEVELS

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In its report titled "Organizational Culture: Use of Training to Help Change DoD Inventory Management Culture," (GAO/NSIAD-94-193) (1994), the Government Accounting Office asserts that the Department of Defense would be able to reduce its inventory of secondary items and develop a culture of economic and efficient inventory management if Department of Defense inventory management personnel were trained in modern logistics practices. In contrast, this thesis presents the position that high inventory levels are the result of performance measures and reward systems that encourage holding high levels of inventory. Included is a description of performance measures used for Item Managers, Inventory Managers, and unit commanders along with a discussion of an employee motivation model and other systemic factors that impact inventory levels. This thesis suggests the addition of Inventory Turnover and Total Costing to the performance appraisals of those within the Department of Defense's supply systems, and a separation of readiness criteria into supply-related and non-supply-related issues for unit commanders' performance appraisals as means to promote lower on-hand secondary inventories while continuing to meet the demand for those items.

EVALUATION OF THE INVENTORY AND ACCOUNTABILITY PRACTICES OF COMMON SUPPORT EQUIPMENT THROUGHOUT PACIFIC AND ATLANTIC FLEETS

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Within Naval Aviation, Common Support Equipment (CSE) plays a critical yet unglamorous role in maintaining aircraft material readiness. Defense of CSE dollars is difficult because the output of Aviation Support Equipment is not measurable. The ability to quantify and defend that role has been the nemesis of the Aviation Support Equipment Integrated Program Team members over the past two budget cycles.

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This study's intent is to provide an argument in defense of adequate program funding. The premise of this argument is: Inventory validity is a major consideration in making sound investment decisions. If the Fleet SE inventory validity is within acceptable limits, then the Fleet's input into the re-capitalization decision support system is valid. If the Fleet's SE inventory validity is poor, then the Fleet's buyout input is suspect. The foundation of this research is to determine how accurately the Fleet's on-hand assets reflect in the automated inventory database used to manage those assets.

This research concludes that the mean SE validity for a reporting custodian's Intermediate Maintenance Activity (IMA) or Organizational Maintenance Activity (OMA) account is 72.4%. Fleet Individual Material Readiness List (IMRL) inventory control processes are hampered by a lack of quantifiable metrics, duplicative and conflicting inventory control methods, and lack of a single source directive detailing inventory procedures. Failure to control these processes degrades the IMRL decision support system, hampers recapitalization decisions, and inhibits the ability to determine how SE—or the lack thereof—impacts aircraft material readiness.

INTEGRATED PRODUCT TEAM IMPLEMENTATION AND LEADERSHIP AT THE PROGRAM LEVEL

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This thesis presents exploratory research that investigated how integrated product teams at the program office level are being implemented in response to Department of Defense policy. Research data were gathered by conducting interviews with twenty participants from three teams representing two program offices. Interviewees were queried about their experiences with integrated product teams relative to issues derived from research literature on effective teams: team implementation processes, mission and structure, training, team management, decision making and conflict resolution methods, and implementation challenges and pitfalls. The research, though only a small sample size, revealed that program managers are consistent with what current teaming literature considers to be "good teaming practices" in the areas of: basic team structure and functional area mix, openness and participation in meetings, and the administration of team meetings. The research also identified practices or problems that the research literature suggests limits team success such as the lack of team consistency and stability, team specific training, team self-assessment and evaluation methods, and the absence of formal feedback mechanisms. Mixed findings were revealed in the areas of empowerment, team self-management, decision making and conflict resolution processes, and support for the teaming concept by senior management.

CALIBRATION LABORATORIES AS A REGIONAL REPAIR CENTER: CONSOLIDATE OR COLOCATE?

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The purpose of this thesis is to examine the integration of AIMDs Miramar and North Island, and NADEP North Island calibration laboratories. The expected benefits and weaknesses or problems resulting from integration are examined. The benefits analyzed include those in the areas of manpower, training, standards reduction, inventory reduction, streamlining facilities, and increased productivity. The problems analyzed include increased transportation costs, facilities modification costs, reduced military resiliency, potential negative impact on customer service, and issues related to sea/shore rotation, AIS, and the internal chain of command. The thesis also discusses Navy organizational structure and financial management

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policy, and the aspects of each that make it difficult to implement change. The thesis concludes that consolidation is feasible and there are scale economies to be achieved from consolidating the Intermediate and Depot level calibration laboratories at NAS North Island. However, the financial management and command and control issues must be solved before the benefits of Regional Maintenance can be realized.

CONTRACT ADMINISTRATION ORGANIZATION: A CASE STUDY OF THE U.S. MARINE CORPS ADVANCED AMPHIBIOUS ASSAULT VEHICLE PROGRAM

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As weapon systems have become more complex and costly, the DoD has explored a variety of methods to decrease the acquisition cycle, reduce costs, and enhance performance of the systems acquired. Current DoD initiatives have focused upon reducing the Government's unique specifications and activities that are not cost effective. This has led to a reexamination of Government policies and practices regarding oversight of contractors. This philosophical shift toward a more team-oriented approach to major weapon systems acquisition has caused a change in the management techniques used by the Government, and consequently, has impacted the structure and relationships between the Government organizations responsible for monitoring and controlling contract performance. This thesis develops a continuum of organizational models based upon the level of control the Government desires in managing a weapon system program. The need for control is based upon the confidence and trust placed in the contractor's capabilities and motivations. The U.S. Marine Corps Advanced Amphibious Assault Vehicle program is then analyzed in terms of the continuum to develop a generic model of the types of organizational structure and inter-organizational agreements needed to promote a culture of partnership between industry and the various Government agencies that are responsible for contract management.

DETERMINING OUTSOURCING POTENTIAL FOR THE INVENTORY MANAGEMENT OF NAVY REPAIRABLES

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The potential exists to outsource the inventory management of repairable items to the private sector. However, the Navy must be able to determine when outsourcing will benefit DoD. This research compares Navy inventory management to commercial inventory management in proposed and existing outsourcing programs and develops a model which the NAVICP can use to estimate the potential success for outsourcing repairable items. The research develops an inventory surcharge of 19 percent. The inventory surcharge represents the Navy's costs to perform functions which can be outsourced and serves as a benchmark for comparison to commercial costs. The research then analyzes the costs and benefits of several successful DLA and NAVICP outsourcing initiatives. The analysis results in a model which NAVICP can use to screen repairable items to determine which level of outsourcing will succeed.

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A DICTIONARY OF ACQUISITION AND CONTRACTING TERMS

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This thesis effort is a continuance of research to determine, through a consensus of opinion among contracting professionals, a definition for current contracting terminology. This research was first initiated by Lieutenant Commander Daniel L. Ryan, Supply Corps, United States Navy and was later accomplished by others at both the Naval Postgraduate School, Monterey, California, and at the Air Force Institute of Technology, Wright-Patterson Air Force Base, Ohio. As with the previous efforts, this thesis examined literary sources for the current definitions and usage of the chosen terms. A definition for each of twenty-five terms was synthesized, incorporated in an open ended survey, and sent to contracting professionals affiliated with the National Contract Management Association. Respondent comments were analyzed, and, when appropriate, incorporated in the final, proposed definitions.

USING THE ACQUISITION PROCESS TO REDUCE THE VULNERABILITY OF FUTURE SYSTEMS TO INFORMATION WARFARE

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Information warfare (IW) is a growing concern for the United States Army. The sophisticated, high-technology modern weapons systems upon which the U.S. Army heavily relies are increasingly vulnerable to IW weapons and tactics. The acquisition process plays a major role in reducing defense systems' IW vulnerability. This research identifies the primary IW threats to systems during the acquisition lifecycle and what factors in the acquisition environment contribute to IW vulnerability. This research also suggests a technique for integrating IW countermeasures into the defense systems acquisition process. A primary finding of this research is that while a Program Management Office (PMO) can institute a myriad of useful countermeasures, influencing the prime contractor to establish a secure development environment is the most important action it can take in reducing the vulnerability of future systems to IW.

AN EXPLORATORY COST ANALYSIS OF NAVY RECRUITING STATIONS

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In determining the most cost effective recruiting station locations, the military services must be able to identify station costs that vary by location as well as location-specific differences in production. This thesis is an exploratory analysis of station-level costs for Navy Recruiting stations. The thesis attempts to identify: (a) the relevant costs of Navy recruiting station location and realignments; (b) the effect of location and realignment decisions on these costs; and (c) who collects the relevant cost items. The thesis explores the feasibility of collecting the data necessary for a cost analysis of alternative station locations. Finally, the thesis aims to evaluate the feasibility of automating cost collection at the recruiting station level. To accomplish these goals the thesis reviews the Navy's responsibilities, policies, procedures, and rationale in determining recruiting resource allocation decisions. The methodology relies on a review of the literature and personal inter-

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views with individuals from Commander, Navy Recruiting Command, Navy Recruiting Areas, selected Navy Recruiting Districts and the Office of the Secretary of Defense's Joint Recruiting Facilities Committee. Two Navy Recruiting Districts are surveyed to collect cost data for a random group of their recruiting stations. These station costs are then matched with the facilities lease and contract cost data from the Army Corps of Engineers' Recruiting Facilities Management Information System and the vehicle cost data from the General Services Administration. An illustrative spreadsheet is constructed containing cost information for stations in NRD San Francisco. The spreadsheet provides cost-per-contract for these stations. Although the thesis was unable to conduct a full cost-effectiveness analysis, it proposes two approaches for future collection and analysis of the necessary cost data.

CENTRALIZED VERSUS DECENTRALIZED ALLOTMENTS IN THE NAVAL SURFACE RESERVE FORCE

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The purpose of this thesis is to examine the advantages and disadvantages of centralized versus decentralized allotments in the Naval Surface Reserve Force. This research will assist the Reserves in determining which system offers the most efficient use of diminishing resources. A literature review on private and government sector systems was completed. Interviews were conducted with key personnel at echelons two, three, and four. The next step was to establish an historical background of the Naval Surface Reserve Force and a baseline of the Reserve Personnel Navy (RPN) and Operations and Maintenance Navy Reserve (O&MNR) allotments. The resultant analysis explains the advantages and disadvantages of the two allotments. If the RPN allotment were decentralized, it would allow responsibility at a lower level, more efficient utilization of funds, and a better identification of actual costs. Decentralization of the RPN allotment to the echelon four command level would entail additional costs for manpower, training, and Management Information Systems. It is recommended that some portions of the RPN allotment be lowered to the echelon four command level.

THE EVOLUTION OF THE DEPARTMENT OF THE NAVY'S CAPITATION-BASED RESOURCE ALLOCATION MODEL AND ITS IMPACT ON RESOURCE MANAGEMENT AT NAVY MEDICAL TREATMENT FACILITIES

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In 1994, DoD implemented managed care and a capitation-based resource allocation model within the Military Health Services System. This study examines the evolution of DoD's model and its impact on resource managers. Interviews were conducted with key individuals from the Office of the Secretary of Defense for Health Affairs (OASD(HA)), Bureau of Medicine and Surgery (BUMED), and at the Military Treatment Facility (MTF) level. A review of the literature on capitation and managed care, including books, white papers, monographs and journal articles, were undertaken. The thesis concludes that the capitation methodology that OASD(HA) and the Services follow is a population-based model. BUMED allocates Defense Health Program (DHP) funds on the basis of capitation categories down to the activity level. However, the MTF resource manager apportions DHP funds to the departments based on historical and workload considerations. Due to a lack of a patient cost accounting module in the present accounting system, actual execution against a capitated resource allocation is not possible. Because of other limitations in the present structure, MTFs under BUMED still use traditional incremental budgeting in allocating funds to their various departments. Thus, the adoption and implementation of a capitation-based financing system had limited impact on resource management at the activity level.

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ANALYZING THE ARMY'S CONFIGURATION MANAGEMENT SYSTEM APPLICABILITY TO A COMMERCIAL CATALOGUING SYSTEM

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General Motors and Ford Motor Company maintain complete Configuration Control of their products and automobiles. That is, a customer orders a replacement vehicle part from their local dealership. Within a few days, they receive the part that meets the form, fit, and function requirement.

Military personnel requiring replacement or spare parts must submit a written request which requires the part name, number with revision level, and the national stock number. Barring any delays, the part is received within two to three days. In most cases, however, there are delays and it takes up to several weeks to receive the part.

The purpose of this thesis is to identify the key elements required for Configuration Management, identify policies, procedures, and regulations that govern, shape, and dictate secondary item procurements, and to analyze the Department of the Army's and Industry's spare parts procurement process.

This thesis demonstrates that the Department of the Army's and Industry's Configuration Management models are similar; but the policies and regulations that govern, shape, and dictate secondary item procurements are quite different; and that Congress and Government agencies must change their policies to adapt to commercial practices. The thesis also demonstrates that the current direction the Government is taking in acquisition reform will seriously impede improvements in the field of Configuration Management, which encompasses the development and maintenance of technical data packages that support secondary item procurements.

ANALYSIS OF THE U. S. MARINE CORPS' STEADY STATE MARKOV MODEL FOR FORECASTING ANNUAL FIRST-TERM ENLISTED CLASSIFICATION REQUIREMENTS

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The Marine Corps accesses approximately 29,000 to 36,000 new recruits annually. Determining how to classify these new enlistees into more than 200 Military Occupational Specialties is a critical task. These classification estimates must be precise, so the units within the Fleet Marine Force will have the necessary personnel to accomplish their mission. At the same time, these manpower planners must also balance the force structure to minimize personnel overages which could lead to excessive labor and training costs as well as promotion delays.

The purpose of this research is to validate and, if necessary, improve the steady state Markov model currently being utilized by the manpower planners at Headquarters, U.S. Marine Corps (Code MPP-23) to forecast the annual personnel classification requirements of new recruits. From a mathematical perspective, all the essential elements of their model were present; however, some of the components like the year one continuation rate were not computed according to standard practice, and their estimates of the classification stocks are imprecise due to rounding errors inherent in their forecasting procedure. As a result, a revised model was developed to improve the accuracy and timeliness of the personnel classification forecasts. The recommendations were to implement the revised model and to review the computation of the continuation rates.

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AN ANALYSIS OF THE PROPOSED SURFACE WARFARE OFFICER CAREER INCENTIVE PAY (SWOCIP) PROGRAM USING AN ANNUALIZED COST OF LEAVING (ACOL) MODEL

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This thesis investigates the effect of the proposed Surface Warfare Officer Career Incentive Pay (SWOCIP) program on the voluntary separation behavior of Navy surface warfare officers using an Annualized Cost of Leaving (ACOL) model. Data provided by the Center for Naval Analyses and the Defense Manpower Data Center (DMDC), Monterey, CA, on surface warfare officers are used for this analysis. Multivariate probit models are estimated to predict the effects of the proposed SWOCIP program on the voluntary retention rate of surface warfare officers between six and ten years of service. These estimates are used to calculate the costs and benefits of the SWOCIP program. This thesis finds that the SWOCIP program would increase the voluntary retention rate by 2.62 percent in the sixth year of service and 1.16 percent in the seventh year of service. The effect would decrease between eight and ten years of service. The calculated savings in accessions are greater than the estimated bonus cost. These calculations indicate, therefore, that the program is cost-effective.

MILITARY PRODUCTS FROM COMMERCIAL PRODUCTION LINES - A FEASIBILITY STUDY

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As defense budgets decline and traditional defense industry suppliers downsize and consolidate, many believe that the Department of Defense (DoD) must learn how to do business in the commercial marketplace. In fact, commercial industry is pacing technological advances in many important areas. Many current and ongoing acquisition reform initiatives are geared to improve the business practices of DoD and to integrate the commercial and defense sectors of the industrial base. This thesis is an examination of one such acquisition reform program. The Air Force's "Military Products From Commercial Production Lines Pilot Program" is demonstrating the feasibility of a commercial firm to manufacture military avionics modules. This thesis explores existing technical, legal, and cultural barriers to implementing the pilot program, analyzes the program's risks and benefits, and makes recommendations for future applications. The thesis provides an account of the successes, failures, and lessons learned that may be used by program managers at all levels in determining if commercial industry can be a viable source of military-unique end-items.

THE DEREGULATION OF ELECTRIC UTILITIES IN CALIFORNIA AND ITS EFFECT ON NAVY INSTALLATIONS

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On January 1, 1998, California will be the first state to deregulate its electricity industry. Deregulation is expected to reduce the high rates paid throughout the state by allowing competition, not regulators, to determine rates.

Deregulation will dissolve the monopoly of the electricity industry by allowing customers to choose who will supply their electricity. Competition will emerge in the generation market, where transactions between consumers and suppliers will be free and open. Under regulation, most customers do not have a choice in their electricity supplier. Their supplier is usually determined by their geographic location.

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This thesis researches the differences between the regulated and deregulated rate structures and provides a cost comparison for a Navy organization classified as a large commercial/industrial user of electricity. There are many aspects of deregulation that are not yet determined, but the initial comparison indicates deregulation may save Navy installations money. If deregulation progresses as planned, additional future saving may occur.

THE NAVAL POSTGRADUATE SCHOOL PUBLIC WORKS DEPARTMENT MAINTENANCE REQUEST PROCESS ANALYSIS

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This thesis analyzes the maintenance request process for the Public Works Department (PWD) at the Naval Postgraduate School (NPS). A flow chart of the maintenance process was developed through interviews with PWD personnel. The PWD's historical database files for FY94 to FY97 provided the data for the analysis. The process flow chart and the data analysis identified areas of inefficiencies and bottlenecks. Methods to relieve the bottlenecks and improve efficiency were identified. Performance metrics were also identified to help the PWD track performance and identify areas where further improvements could be made.

This research found that the PWD can benefit most by improving labor scheduling, material requisitioning, and its information technology management system. Additional benefits could materialize from improving the PWD's allocative efficiency (i.e., project priority system).

INTEGRATED CONCEPT TEAM UTILIZATION IN THE REQUIREMENTS DETERMINATION PROCESS

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The Army has developed a new requirements determination process aimed at providing decision-makers with better cost and technological feasibility information. The goals are to cut acquisition cycle-time and costs. The Army Training and Doctrine Command (TRADOC) will be responsible for all requirements decisions under the new system. The Army recognizes that requirements are produced from a variety of sources—battle labs, field commanders, Force XXI joint ventures, TRADOC schools, and other major Army commands. TRADOC, through its schools, is the new guiding force for the process. The school commandants will define, document, and defend doctrine, training, leadership development, organization, material development, and soldier requirements (DTLOMS). The user, requirements, and acquisition communities will have representatives on newly-created integrated concept teams (ICTs). Industry, academia, and relevant Pentagon organizations will also have members on the teams. ICTs will guide the requirements development process and complement the integrated product team (IPT) methodology already used by material developers. Establishing ICTs early in concept development enables the teams to transition to IPTs when a material requirement is approved at a Milestone I decision.

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THE EFFECTS OF POLICY GUIDANCE EMPHASIZING THE USE OF PARAMETRIC METHODS IN COST ESTIMATING

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This study examines the potential impacts of DoD emphasizing the use of parametric cost estimating methods or techniques in the acquisition process. As one of many initiatives to improve the DoD acquisition process through use of commercial practices, parametric cost estimating has the potential to be helpful in many applications for which it has never before been considered. This study, conducted through a questionnaire, personal interviews, and a review of recently released publications from the DoD Joint Government/Industry Initiative, identifies areas of interest for those anticipating using parametric cost estimating methods and techniques. These areas include the Program Definition and Risk Reduction and Engineering and Manufacturing Development phases of program management as well as for many pre-award contract actions. The data from this thesis show that the majority of the personnel in the DoD acquisition community believe that parametric cost estimating methods can be used effectively in those areas. The data also show that the methods also may have applications in the Production, Fielding/Deployment and Operational Support phase of program management and post-award contract actions such as negotiating changes, forward pricing rate agreements, or analyzing claims.

HOMOSEXUALITY, MORALITY, AND MILITARY POLICY

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In December 1993, the Department of Defense issued directives that revised the military's exclusionary policy toward homosexuals. These directives marked the culmination of an intense period of public debate that placed little emphasis on the moral dimension of homosexuality. The objective of this thesis is to determine if personal religious beliefs of military members influence their responses to policies that they perceive to involve morality, specifically with regard to the 1993 proposal to integrate homosexuals into the military. The research approach involved two phases: a review of the religious heritage of the United States, the First Amendment to the Constitution, and the history of military policies toward homosexuals; and an analysis of the religious demographics of the active-duty military, the doctrines on homosexuality of the largest denominations represented in the military, and the expressed moral beliefs of active-duty members regarding homosexuality. The results indicate that the United States has a strong Christian heritage, and that the First Amendment to the Constitution was not written to exclude Christian moral influence from the public-decision making process. Demographic data shows that a majority of military personnel classify themselves as Christian. Also, various studies suggest that a majority of military personnel oppose homosexual integration into the military. The author concludes that opposition to homosexual integration from military personnel is likely influenced by Christian teaching. It is recommended that future research explore the implications of opposition based on religious belief.

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STUDY OF THE U.S. MILITARY OFFICERS COMMISSIONED THROUGH ROTC AND THE SERVICE ACADEMIES

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This thesis compares the performance of officers who have been commissioned through the U.S. Reserve Officers Training Corps (ROTC) with that of their counterparts who are graduates of the Service Academies. The study is intended to assist the Republic of China Department of Defense in designing its ROTC program and in establishing measures of program effectiveness. A special database, developed by the Defense Manpower Data Center, was used as the basis for statistical analysis. The database includes all U.S. officers who were commissioned in 1977 and allows for the tracking of officers longitudinally through promotion to O-5. The comparison of performance focuses on promotion rates to O-4 and O-5 and the retention experiences of officers in all armed forces, using logistic regression analysis. The results indicate that the U.S. ROTC program is successful in attracting high-quality officers to a career in military service. The success rates of ROTC officers are especially evident in ROTC scholarship programs and in programs administered by the U.S. Air Force. The effects of various demographic variables are also estimated. Further research of U.S. ROTC programs is recommended to aid the government of Taiwan in establishing a similar system for commissioning military officers.

MARKET RESEARCH IN THE UNITED STATES NAVY: A STUDY OF THE SKILLS AND TOOLS REQUIRED TO CONDUCT MARKET RESEARCH

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This thesis investigates the underlying policy guidance and the current skills and tools used in conducting market research within Department of the Navy procurement activities, and explores the potential for future improvement in the market research process. The process of market research is explored by establishing what types of information are collected, who is collecting the information, and what tools and skills are currently utilized to both collect and analyze market information. This thesis also examines the application of Information Technology to the market research process.

Market research is an essential part of advanced procurement planning and the procurement process. Detailed market research provides the procurement workforce with information in order to make better and more informed procurement decisions. New legislation has targeted market research as a tool to examine the commercial marketplace. This thesis examines the workforce perceptions in the market research process as well as recommendations on how the Department of the Navy might best improve the market research process.

MEASURING THE EFFECT OF THE DEFENSE ACQUISITION WORKFORCE IMPROVEMENT ACT

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Numerous reform initiatives have attempted to improve the acquisition process. The success or failure of these initiatives have often been based on subjective determinations. In order to determine the true effect of these initiatives we must be able to measure the effect of these initiatives on the acquisition process. Measurement requires the development of metrics. This

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study explores the use of metrics for measuring the effect of acquisition reform, using the Defense Acquisition Workforce Improvement Act (DAWIA), Public Law 101-510, as a case study.

This study identifies the objectives of DAWIA. Using the Policy Effectiveness Model, the study develops and proposes metrics for DAWIA objectives in an effort to measure the implementation and effectiveness of this important and far reaching acquisition reform legislation.

ACTIVITY-BASED COSTING AND MARINE CORPS FORMAL SCHOOL BUDGETING

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The purpose of this thesis is to evaluate the current practice for budget estimation and resource allocation in Marine Corps Formal Schools for potential improvement. The methodology used devises a budgeting system that reflects variation in activity level, or output requirements, and how costs change when student throughput changes.

While the evaluation is relevant to Marine Corps Formal Schools in general, the research focused on an approach taken by the Marine Corps Engineer School for the development and design of its Cost Estimation and Resource Allocation Model and the potential for application in any Marine Corps school. The spreadsheet modeling technique employs the concepts of activity-based costing for cost estimation, resource allocation, and budget execution. The thesis addresses the shortcomings of current budgeting practices by applying a modeling technique that was designed to facilitate cost identification for direct and indirect course costs, as well as allocation of overhead and general/administrative costs, thereby providing for the association of costs with varying outputs.

RE-ENGINEERING THE NAVAL POSTGRADUATE SCHOOL'S PURCHASE CARD ACCOUNTING PROCESS

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When DoD introduced the purchase card program in 1989, no standardized system was adopted to manage internal memorandum accounting. Today the services are populated with dozens of unique applications for managing purchase card accounting. DoD is currently standardizing each service's purchase card automated systems. The focus of this research was to evaluate the DoN card program at the activity level. Specifically, it identifies the cost savings in replacing the current automated purchase card management system, known as the standard automated contracting system, with a standardized memorandum accounting system for tracking credit card purchases at the Naval Postgraduate School (NPS). To identify these savings, interviews were conducted with NPS and Defense Finance and Accounting Service representatives, and the historical purchase card data for NPS was analyzed. By adopting the DoD proposed new practices and eliminating the current non-value added steps in the NPS process, the potential annual costs savings are \$619,895 if specific job descriptions are eliminated and \$361,727 if current job descriptions remain unchanged.

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ACQUISITION OF FOREIGN NON-DEVELOPMENTAL ITEM (NDI) WEAPON SYSTEMS FOR UNITED STATES SPECIAL OPERATIONS FORCES

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The purpose of this thesis is to explore and analyze the process required to procure foreign non-developmental item (NDI) weapon systems for Special Operations Forces (SOF). The primary intent is to provide the program manager and other acquisition professionals with information needed to identify the strengths, weaknesses, and validity of acquiring foreign NDI weapon systems. A case analysis, focusing on the acquisition of the Maritime Air Delivery System (MADS) for USSOCOM, is utilized to develop recommendations regarding the procurement of foreign NDI weapon systems for Special Operations Forces. Key issues regarding the MADS procurement are analyzed within the context of the impediments, challenges and advantages discussed in the thesis. It was determined that the MADS acquisition strategy, although not perfect, was sufficient to obtain and test a viable weapon system while mitigating the risks associated with cost, schedule and performance. Problems encountered during the process have been identified and organizational and administrative changes have been made to correct these deficiencies.

TRAINING IN COMMERCIAL LOGISTICS PRACTICES TO IMPROVE INVENTORY MANAGEMENT IN THE NAVY

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The Department of Defense (DoD) has repeatedly been accused of needlessly holding large inventories. In comparison, the commercial sector has drastically cut its inventories over the last twenty years through such practices as Just-In-Time (JIT) and cycle time compression. Some defense analysts have suggested that training in commercial logistics would change the culture of DoD inventory management and promote similar efficiencies. This thesis examines that idea in the context of inventory management of secondary items in the Navy. It describes Navy inventory structure and it examines the causes of excess inventory. It then discusses current training for Navy and DLA item managers and active duty Navy personnel, and how that training is applied at inventory control points and in the fleet. The thesis then looks at commercial practices and the factors necessary for their implementation. It concludes that training in commercial logistics practices would not improve Navy inventory management for several reasons. First, the causes of excess inventory are unrelated to training. Second, the factors necessary to implement commercial logistics practices are not present in the Navy. Finally, training is not a principal agent in cultural change since it is better suited to conforming personnel to an existing culture. The author recommends increased emphasis on Joint Total Asset Visibility as a foundation for improved DoD inventory management.

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UNIT COHESION AND THE MILITARY'S "DON'T ASK, DON'T TELL" POLICY

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The Department of Defense policy of excluding known homosexuals from military service is partially based on the assumption that homosexual service members pose a threat to the cohesion of a military unit. The assumption is drawn largely from anecdotal evidence suggesting that junior service members would be uncomfortable in an environment that accepted homosexuals. This thesis examines the attitudes and opinions of junior officers to determine various aspects of unit cohesion that may be affected by homosexual service members. A series of seven focus group interviews were conducted with officers attending the Naval Postgraduate School in 1996. Analysis of the focus group interviews indicates that junior officers may be far more tolerant toward differing sexual preferences than is assumed; and that the commission of inappropriate acts, such as fraternization, assault, or sexual harassment, may form a stronger basis for exclusion of personnel than sexual preference. Military leaders intent on achieving and maintaining unit cohesion should reexamine the impact that homosexuals have on unit cohesion.

THE DEVELOPMENT OF CAREER NAVAL OFFICERS FROM THE U.S. NAVAL ACADEMY: A STATISTICAL ANALYSIS OF THE EFFECTS OF SELECTIVITY AND HUMAN CAPITAL

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This research analyzes the United States Naval Academy's (USNA) admissions and professional development processes and their impact on the career development of its graduates in the Unrestricted Line (URL) communities. Three hypotheses are advanced to explain the high level of fleet performance and retention of USNA graduates: selectivity of applicants; Navy-specific human capital investment; and institutional favoritism. Nonlinear LOGIT regression models for the USNA Classes of 1980 through 1985 are developed to analyze the influence of the hypothesized factors on the probability of a midshipman: (a) graduating from the USNA and (b) developing into a career officer.

Both the USNA's composite "whole-person" and individual selection criteria play a significant role in the probability of graduation. Non-scholastic affective selection criteria, and both affective military performance and Navy-specific cognitive skill development at the USNA, are positively associated with the development of career officers. Additionally, several key predictors of career potential are identified. A paradigm shift in perspective from the current short-term context to a life-cycle career context is recommended in the "whole-person" selection and development of USNA midshipmen.

VIDEOTELEEDUCATION: LESSONS LEARNED

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Videoteleeducation is a method of education and training that is occurring more frequently in corporate, military, and educational environments. VTE provides education and training to people who cannot or who prefer not to attend traditional educational institutions, to employees or companies who need timely information, and to those who seek cost savings for training widely dispersed groups of people. This study uses personal interviews of professors and trainers in both the military and civilian sector and reviews the VTE literature to determine lessons learned from VTE. Results show that VTE

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causes changes in instructional design, physical, administrative and technological support, production facilities, and student/teacher preparation. The transition from a live classroom to VTE requires teachers to develop new skills and behaviors. Additionally, VTE saves costs and effectively delivers training as shown in studies of private corporations, federal agencies, educational institutions, and the military. However, VTE is not applicable to all courses and teaching methodologies. While researchers claim that VTE is effective, they often have not applied appropriate evaluation measures to their claims of VTE efficiency and effectiveness. Decision makers should conduct thorough analyses and exercise caution before committing to a VTE program based on the claims in the literature.

PROMOTION POLICIES AND CAREER MANAGEMENT - AN EMPIRICAL ANALYSIS OF BELOW-ZONE PROMOTION OF U.S. NAVY OFFICERS

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and

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This thesis investigates the selection and promotion of officers in the U.S. Navy. This thesis develops multivariate models to estimate the effects of "belowzone" early promotion on the career of officers and attempts to determine whether below-zone selection puts Navy officers on the fast-track for later promotion or whether, instead, it increases the probability that their subsequent career will stagnate. Outcome variables include: performance on fitness reports, screen for command, and promotion to the ranks of Commander (0-5) and Captain (0-6). Using data from the Navy Officer Promotion History Files, the thesis analyzed officers appearing before their respective promotion board between fiscal years 1986 and 1995. The data sets were further categorized into three major URL warfare communities (submarine, surface, and aviation).

Ordinary Least Squares (OLS) and maximum likelihood logit regression models are employed to estimate the probability of being promoted, to screen for command, or having high fitness report scores in comparison to officers selected in-zone. The findings do not reveal evidence that officers earlier promoted below-zone incur later disadvantages in comparison to their fellow in-zone selected officers. Recommendations for further studies are included.

CONTRACTING IN A FOREIGN COUNTRY

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The emergence of the United States as the only remaining superpower requires its forces to deploy to an increasing number of foreign countries. U.S. businesses are expanding their markets to include many foreign countries as well. Additionally, the United Nation's role as a multi-national peacekeeping force is growing. This thesis investigates and compares the different contracting structures of the U.S. Army, the TIN, and Apple as well as the duties and responsibilities of the contracting individuals within these organizations. It also explores the regulations and policy, training and organization-specific issues relevant to overseas contracting.

This thesis revealed that although each organization is unique in its methodology of overseas contracting, it is possible for each organization to learn from another's method of contracting. This thesis did not determine the best way to conduct overseas contracting, nor was this the intent. The objective was to compare different ways of contracting overseas. In doing so, a reference document is now available for current and future contractors. The knowledge gained from this document will help prepare these contractors to meet the challenge of contracting in a foreign country.

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ASSIGNING COMMUNITY CRITICALITY WEIGHTS TO MARINE CORPS READINESS REPORTABLE EQUIPMENT

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The Marine Corps' purpose of reporting equipment readiness ratings is to reflect both the portion of equipment possessed by an organization and the ability to perform its wartime mission. Supply ratings generated by the current methodology do an adequate job of reflecting the portion of equipment available for use, but the readiness ratings fall short of representing the unit's true war-fighting ability. The current method used to compute readiness ratings reflects the percentage, or fraction, of readiness reportable items rated that are on-hand and in an operational condition. Under this method, any reportable item that is declared as being in a deadline maintenance condition will impact the readiness rating with an equal weight, regardless of the critical nature of the item. This thesis proposes a better way of computing the readiness rating in order to ensure it represents the true war-fighting capability of the unit instead of a mere percentage of available equipment. The study involves assigning "community criticality weights" to Marine Corps reportable equipment that will reflect the critical nature of an item in terms of the war-fighting mission assigned to the organization that possesses it. When a piece of equipment becomes deadline, the community criticality weight will be considered when generating readiness ratings. A broken item will, therefore, influence the readiness rating by a magnitude that is commensurate with the item's community criticality weight. The readiness rating will now bear a closer approximation to the war-fighting ability of the unit than the rating generated under the current method and it will ensure that the priority of the maintenance effort is focused on those items that will provide the maximum benefit to mission accomplishment.

DEVELOPMENT OF A MODEL TO PREDICT DRUG USE AT THE LOCAL COMMAND LEVEL IN THE U.S. NAVY

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The primary objective of this thesis is to develop a model that predicts the threat of drug use at the local command level. The model is developed from two surveys: (a) the National Household Survey on Drug Abuse (U.S. Department of Health and Human Services) and (b) the 1995 Department of Defense Survey of Health Related Behaviors Among Military Personnel. This predicting technique is applied to specific Navy commands from data obtained from the Defense Manpower Data Center (West) on each command's demographic profile.

The results show that a model can be developed to predict drug use at the local command level based on the underlying civilian drug use propensity. The sex of an individual is the most important predictor for civilians. The education level and the age of the individual are the most important predictors for the military. Race and sex do not have an impact on drug use among military members.

The model could be used by local commanders to determine the potential threat of drug use at the command. Commands should test at a monthly test rate relative to the magnitude of this threat. The model should be revalidated periodically as demographic and locational factors change.

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STUDY OF ATTRITION AMONG ENLISTED WOMEN IN THE NAVY

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This thesis examines data on the possible reasons for attrition among enlisted women in the Navy. Cross-tabulations are employed to analyze the most prevalent reasons for attrition among women in the Navy across occupations and compared with men. Entry cohorts from fiscal years 1986 through 1990 were used to identify personnel who left the Navy prior to the completion of their obligated service over a 48-month period. The study results indicate that, with the exception of pregnancy and alcohol/drugs, the reasons for early separation are generally the same for men and women across Navy occupations. The study suggests that further research is needed to accurately determine and address the reasons for female attrition from the Navy.

IMPACT OF NATIONAL CULTURE IN FOREIGN MILITARY SALES PROGRAMS: A CASE STUDY OF THE SWISS AND FINNISH F/A-18 FOREIGN MILITARY SALES

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This thesis is a case study of the impact of the national cultures of buying nations on Foreign Military Sales (FMS) programs. The sales of the F/A-18 fighter aircraft to Switzerland and Finland are specifically evaluated. The issues brought forth in this study will demonstrate the necessity for those employees who interact with people from foreign cultures to ensure that they possess adequate training in cross-cultural communications. In an era of declining defense budgets, defense contractors are pursuing foreign buyers vigorously. Increased competition from foreign competitors mandates the need for increased awareness of intercultural differences and improved skills in this area. Cross-cultural communications training opportunities for both Government employees and contractor personnel are discussed, in addition to reviewing the current status of training received by the personnel assigned to two on-going FMS cases. Proper intercultural communications training will help defense contractors and Government agencies by resulting in more efficient programs with fewer misunderstandings and possibly in lower prices for the Government as a result of increased economies of scale due to the foreign sales. Recommendations for further research are provided.

AN ECONOMIC ANALYSIS OF THE SMALL BUSINESS ADMINISTRATION'S 8(A) PROGRAM

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Since the late 1960s, the Federal Government has supported a policy of affirmative action with respect to the award of government contracts to small business firms owned and operated by members of select minority groups. Although originally structured to aid in the development of small business regardless of minority status, the Small Business Administration's 8(a) program fell victim to social and political pressures of the civil rights movement; becoming an instrument of affirmative action through federal procurement. With the apparent shift in the national social opinion towards quotas and set-asides based on minority affiliation, including the Supreme Court's recent ruling against such set-asides in *Adarand Constructors, Inc. v. Peña*, the future of the 8(a) program is uncertain. Minority set-aside programs have not historically been subject to cost/benefit analysis. This thesis analyzes the economic efficiency of the 8(a) program. Finally, the research concludes with an analysis of alternative initiatives sponsored by the United States Congress and the President.

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WHEN SHOULD BUREAU OF MEDICINE AND SURGERY HOSPITALS MAKE OR BUY SERVICES?

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This thesis provides Commanding and Executive Officers tools to use in make-or-buy decisions for Naval health care treatment facilities. It analyzes make-or-buy issues, presents criteria and variables to use in make-or-buy decisions, and identifies services to contract out. It also focuses on three make-or-buy analyses conducted by Naval Medical Center San Diego. Criteria and variables that the medical center used in make-or-buy analyses and lessons learned from this experience are discussed. The thesis applies data used in the three make-or-buy analyses to potential outsourcing initiatives at other Naval hospitals. In conclusion, the thesis outlines the need for an outsourcing plan, a transition plan, a personnel relocation plan, and a make-or-buy analysis. Appropriate criteria for a make-or-buy analysis are suggested. Recommendations indicate when Naval hospitals should make or buy services.

RE-ENGINEERING THE NAVY PROGRAM OBJECTIVES MEMORANDUM (POM) PROCESS

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This thesis examines the Navy Planning, Programming and Budgeting System (PPBS) to determine if reengineering principles can be applied to increase the efficiency and effectiveness of resource allocation. In particular it focuses on improving the Program Objectives Memorandum (POM) process. A comprehensive description and analysis of the current Navy PPBS process is provided. This thesis analyzes unique characteristics of the policies, procedures and organizations that have shaped the development of the Navy POM process, as well as the major external forces that have affected Navy PPBS.

Process reengineering for the POM is evaluated against criteria represented in three resource allocation methodologies: Strategy-to-Tasks, Mission-Based resource allocation, and the General Staff Command. A description of each methodology is provided along with its application to the Navy POM and PPBS process.

Organizational structure and resource allocation processes within DoD have been under constant scrutiny and revision since WWII. This thesis recommends a resource management method that provides for a fundamental redesign of the current PPBS process. Implementation of this methodology would have broad effects on DoD and Navy organizations, the roles and missions of the military departments and services and unified military operations.

ALTERNATIVE FRAMEWORKS FOR IMPROVING GOVERNMENT ORGANIZATIONAL PERFORMANCE: A COMPARATIVE ANALYSIS

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Complex government bureaus and their managers struggling to adapt to major changes find they are faced with alternative frameworks to improve organizational performance. Six major frameworks emerging in the U.S. since 1980, applicable to the public sector, and designed to enhance organizational change toward improved performance are reviewed and analyzed: Total Quality, "Excellence," Reinvention, including the National Performance Review, the Government Performance and

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Results Act of 1993, the Baldrige Award, and Reengineering. The purpose of the thesis is to provide guidelines to assist public managers in organizational change toward improved performance by analyzing the frameworks based on four criteria: workable in a political, pluralistic environment; realistic given constraints; comprehensive from a systems perspective; and capable of providing explicit measures of organizational performance.

CONSISTENCY IN DEPARTMENT OF DEFENSE ENVIRONMENTAL CONTRACTING

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This thesis examines and analyzes the unique aspects of environmental remediation and the different contracting methods used by the DoD to outsource its environmental contracting needs. The analysis was conducted using archival and opinion research to define the unique qualities associated with environmental remediation and the individual Service's contracting methods. The research revealed that legislative requirements are numerous and a majority of the environmental remediation requirements are unclear in nature. The Navy's choice of the Comprehensive Long-Term Environmental Action Navy (CLEAN) and the Remedial Action Contract (RAC) and the Army's choice of the Total Environmental Remediation Contract (TERC) are compared and evaluated. This evaluation looks at the advantages and disadvantages in their application. The researcher's analysis of the data determined that the Army's TERC contract is the more efficient environmental contracting method. With the ultimate objective of providing an environmental contracting method that would enhance an integrated single face to industry it is recommended that the Army's TERC contracting method be adopted for use throughout the DoD.

A FEASIBILITY STUDY INTO THE USE OF A SINGLE LOCAL FINANCIAL MANAGEMENT SYSTEM FOR THE DEPARTMENT OF THE NAVY

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This thesis investigated the feasibility of implementing a single Navy-wide local financial management system. In this era of downsizing and budget cuts, the government is looking for opportunities to spend funds more efficiently. One initiative which is starting to pay dividends is consolidating finance and accounting systems. The Navy-wide implementation of the Standard Accounting and Reporting System family of accounting systems is nearly complete. This system, however, provides no financial management capability to local managers. These managers must independently organize their local financial management systems.

This thesis evaluated the feasibility of taking this consolidation process one step further, to the local level. It used the Fund Administration and Standardized Document Automation System (FASTDATA) local financial management system as a baseline for analysis. It evaluated the system's capabilities and its acceptability by operational users.

It was determined by the research that a single Navy-wide local financial management system is feasible. FASTDATA performed extremely well and users find it to be a very acceptable system. FASTDATA has the potential to fill the role as the Navy-wide local financial management system. However, several technological upgrades will need to be incorporated.

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JUST-IN-TIME TECHNIQUES AS APPLIED TO HAZARDOUS MATERIALS MANAGEMENT

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Just-in-Time (JIT) production and purchasing techniques represent highly effective methods to procure and move material through a manufacturing or service process in a continuous flow. Successful use of these techniques means that material never sits idle, eliminating the need for inventory systems and costs associated with them. Another characteristic of JIT is its focus on the elimination of waste by using resources to their full potential. This focus on smooth flow of materials and elimination of waste is especially appealing in the area of hazardous materials (HAZMAT) management. This is because there are high inventory and disposal costs associated with this material and because HAZMAT typically has a limited shelf life. For this reason HAZMAT management programs seek to reduce and consolidate inventories, reduce material entering the waste stream, ensure materials are used only where appropriate, and guarantee appropriate vigilance. There are several features of JIT that mirror the goals of Navy HAZMAT management programs. This study investigates the feasibility of integrating JIT techniques in the context of hazardous materials management. This study provides a description of JIT, a description of environmental compliance issues and the outgrowth of related HAZMAT policies, and a broad perspective on strategies for applying JIT to HAZMAT management.

MILITARY AND CIVILIAN RELATIONSHIPS: DO THEY AFFECT INTEGRATED PRODUCT TEAMS?

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The implementation of the Integrated Product Team (IPT) concept by the Department of Defense to support the acquisition process assumes that service members and DoD civilians work together productively to produce effective weapon systems. This thesis investigates military-civilian relationship issues on IPTs.

Interviews were conducted with twenty-three DoD civilians and service members who have participated in Department of Defense IPTs. These interviews were consolidated and issues shared by a majority of the interviewees are presented and analyzed in terms of the existing literature on intergroup conflict. All interviewees stated that these group stereotypes had no negative impact on IPT performance.

Conclusions reached were that military and civilians do have positive and negative perceptions regarding the other group, and based on existing literature, these issues present challenges for the two groups to work together productively when both participate in IPTs. Models from the research literature on intergroup conflict are used to provide recommendations for addressing intergroup perceptions and improving the effectiveness of IPTs.

TRAINING IN COMMERCIAL LOGISTICS PRACTICES TO IMPROVE INVENTORY MANAGEMENT IN THE ARMY

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The Department of Defense (DoD) and private firms share a common set of logistical challenges. Rising costs, external pressures, new technology, and other factors have focused attention on improving logistics management. GAO believes top

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management support and training are fundamental to improving economy and efficiency for DoD's inventory management system. This thesis examines current inventory management training and policies for secondary item inventories used by the Department of the Army to determine the potential impact of increased training in commercial logistics practices on Army inventory management. The study briefly describes the Army Supply System, evaluates current performance, reveals current training practices, discusses commercial logistics practices, and identifies the key factors required for implementation of commercial logistics practices. These key factors form the basis for a comparison between the public and private sectors. Finally, McCaskey's model of organizational behavior is used to assess the potential for increased performance through training in commercial logistics practices. This study concludes that training in commercial logistics practices will not improve the inventory management system. There are inherent differences in the political, economic, legal, and social environment that must be addressed first.

THE STATE-OF-THE-ART OF BUDGETARY FINANCIAL REPORTING IN THE NAVY

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The purpose of this thesis was to investigate current budgetary financial reporting practices in the Navy and provide a comprehensive overview of budgetary reporting in that department. This thesis reviewed and discussed appropriation life cycles, along with the organizations, accounting systems and reports involved in Navy budgetary financial reporting. Each appropriation enacted and allotted down the financial chain of command is accounted for through budgetary financial reporting. The organizations involved in budgetary reporting are categorized into two groups—field level and service level. Five reports are currently in use: Trial Balance Report, Expense Element Report, Fund Status Report, Report on Budget Execution, and Appropriation Status Report. The Navy is streamlining its current budgetary financial and accounting reporting use of 37 systems down to two primary budgetary accounting systems: the Standard Accounting and Reporting System and the Naval Headquarters Financial System. A comparison of budgetary reporting with private sector financial reporting illuminated similarities in the basic accounting model underlying the financial reports, but differences in reporting objectives and practices. Budgetary financial reporting serves the objective of reporting budget execution status well but is limited in its ability to communicate financial position.

THE APPLICATION OF RE-ENGINEERING TO THE ACQUISITION PLANNING PROCESS FOR A MAJOR WEAPON SYSTEM: A CASE FOR INFORMATION TECHNOLOGY

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Effective and timely acquisition planning is vital to the successful procurement of a major weapon system. However, the underlying process may not be well understood or defined, is labor intensive, and heavily bureaucratic. Efforts to improve the planning function for a major weapon system traditionally focus on the people and organizational aspects without showing any real reductions in time or increases in productivity. New approaches, such as business process reengineering, now show considerable promise in dramatically reducing cycle times, especially when combined with information technology as an enabler. This paper explores the use of information technology in the development of an acquisition plan at a major systems command and suggests that process innovations of 50% or more may be possible. To accomplish this improvement, the process of developing an acquisition plan is redesigned using database and workflow systems as enablers to the process.

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MULTI-YEAR PROCUREMENT: A DESKTOP GUIDE

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This thesis provides a desktop guide to assist the program manager in the use of multiyear procurement. Information is provided to help the program manager in selecting multiyear candidates and guidance is provided to assist the program manager in the implementation of multiyear procurement. A questionnaire was used to elicit information from multiyear procurement users about problematic issues they have encountered. It is difficult to develop a system that meets the disparate needs of the contractor, Department of Defense, and Congress. The end result has been the development of a system based on compromise and accommodation. The responses to the questionnaires indicated, while there are aspects of multiyear procurement that some program offices would, at times, like to change, multiyear procurement is workable as is.

THE UNITED STATES MARINE CORPS MILITARY OCCUPATIONAL SPECIALTY 9656: A STUDY FOR GREATER UTILIZATION

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The Marine Corps' current utilization of its Officers designated with the secondary Military Occupational Specialty (MOS) 9656, Contracting Officer, is strictly limited to the Marine Corps Field Contracting Structure. This Field Contracting Structure is made up of only 22 billets, all which are designated for officers with a rank of either Captain or Major.

This thesis researches the potential for utilizing 9656 designated officers into organizations outside the current Field Contracting Structure. It will present a set of criteria used to determine which potential organizations should incorporate a 9656 billet. Potential organizations were selected from the Marine Corps, the Department of the Navy, and other Department of Defense activities. This thesis also examines a proposed acquisition career path and its affect on the 9656 MOS.

Recommendations regarding 9656 billet incorporation and the need for an acquisition career path are presented.

ANALYSIS OF THE APPLICATION OF MODELING AND SIMULATION WITHIN THE ARMY OPERATIONAL TEST AND EVALUATION PROCESS IN SUPPORT OF WEAPONS SYSTEMS ACQUISITION

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The purpose of this thesis is to analyze the application of Modeling and Simulation (M&S) within the Army Operational Test and Evaluation (OT&E) process in support of weapons systems acquisition. This thesis considers the Army's current acquisition process, M&S technologies, infrastructure, and policies that guide the Program Manager (PM) in the application of modeling and simulation in operational testing. An analysis of the potential strengths and weaknesses of M&S in addressing OT&E issues is presented. Lessons learned from past OT&E efforts are analyzed for process improvement through M&S applications. The analysis indicates that M&S is a viable tool for assisting the PM in completing OT&E. M&S techniques can assist in test design validation, expand testing in areas of limited resources and environmental con-

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cerns, and validate live testing data. From this analysis, a set of recommendations are formulated, indicating where the PM can integrate M&S into the OT&E process.

AN EXAMINATION OF THE RISKS FACING THE ARMAMENT SUBSYSTEM OF THE ARMY'S CRUSADER PROGRAM

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The decline in defense budgets has forced acquisition officials to continue to seek ways to leverage scarce resources. Careful, well-thought out use of risk management techniques is a prudent method of providing such leverage. This thesis examines one program's approach to risk management. With the decision to replace the fleet of M109 howitzers in the Army, the Crusader Program Office selected an aggressive, streamlined approach which emphasized the use of proactive risk management. This approach has proven its value by contributing to the recent decision to switch from liquid to solid propellant. Although extremely difficult technical risks have been eliminated, the armament's product office continues to face challenges which can only be met through proactive risk management. This thesis focuses on identifying and analyzing ten of the significant schedule risks facing the armament subsystem of the Army's Crusader program. It concludes with recommendations on the risk management techniques which may best apply to the risks.

PROMOTING ECONOMIC DEVELOPMENT IN AMERICA'S INNER CITIES WITH FEDERAL CONTRACTING INCENTIVES

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For over 30 years, the United States has faced the challenge of revitalizing its deteriorating urban communities. Throughout the 1980s and early 1990s, U.S. policy-makers have shown an interest in geographically targeted urban economic development strategies, specifically in the form of Enterprise Zones. Now renamed Empowerment Zones, these are sections of poverty-stricken communities in which the Government hoped to promote economic development by providing businesses with incentives to locate in the zones. These Empowerment Zones primarily used tax incentives to convince businesses to relocate. Studies revealed that this approach to attracting businesses to the targeted region has met with minimal success.

In the past two years, U.S. policymakers have proposed two initiatives that use the Federal procurement system as a means to incentivize firms to locate into economically distressed urban and rural areas. This study analyzes the Federal Government's recent initiatives to stimulate economic development in America's inner cities with Federal contracting incentives. It answers questions surrounding the potential economic impact of such initiatives on the inner city. Lastly, the study recommends alternative policy approaches to applying Federal contracting incentives to create jobs and spur business investment in America's inner cities.

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SPREADSHEET DECISION SUPPORT MODEL FOR TRAINING EXERCISE MATERIAL REQUIREMENTS PLANNING

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This thesis focuses on developing a spreadsheet decision support model that can be used by combat engineer platoon and company commanders in determining the material requirements and estimated costs associated with military training exercises. The model combines the business practice of Material Requirements Planning and the commercial spreadsheet software capabilities of Lotus 1-2-3 to calculate the requirements for food, consumable supplies, petroleum products, and major end items of equipment. The demand for these materials are directly dependent on the quantities of personnel and equipment items to participate in the training exercise. The model takes into consideration existing on-hand and on-order supplies and materials, and the anticipated effects of lead times in determining the net requirement and time period an item must be placed on order to ensure its availability for the training exercise. The capability of this model to enhance planning through what-if analysis and the investigation of variability and stochastic influence on the model is also explored. The add-in program Crystal Ball is used to simulate the effects of lead time variability on the model.

ANALYSIS OF CONSOLIDATING DEFENSE ACQUISITION INFORMATION ON THE INTERNET

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The Internet began over 30 years ago as a method of providing vital military communications following a nuclear attack. Today, due to the introduction of the World Wide Web and recent commercial interests, the Internet has grown into a multimedia source of information, and has become overloaded with information. Acquisition professionals in both the government and civilian defense acquisition sectors are attempting to use the Internet as an efficient and effective communications tool. However, due to the overloaded nature of the Internet, they are having difficulty finding relevant information in a timely manner.

This thesis provides an overview of the current Internet tools available to acquisition professionals. It also demonstrates why these tools are not effective in providing timely acquisition information. This thesis proposes the development of a defense acquisition information center that would consolidate all acquisition information into one user-friendly location on the Internet. By organizing and consolidating information, the Internet can be transformed into a highly efficient and effective communications tool for the acquisition community.

THE ANATOMY OF JAPAN'S POSTWAR ECONOMIC DEVELOPMENT

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This thesis examines the anatomy of postwar Japanese economic development. It is illustrated by the reform and reconstruction era (1945-52) and those factors which caused the Japanese economy to grow during the 1953-73 period. Furthermore, on the basis of Japanese economic successes, the role of the Japanese in world affairs again became important. However, due to the world experiencing economic inflation and an oil shock after 1974, the Japanese economy also experienced slower growth. Discussed in detail are those factors that made the Japanese economy slow down in this period. This

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thesis stresses the three decades of Japanese economic development after World War II. Evaluation of the Japanese economy is necessary to analyze its weaknesses and strengths which will shape its further development and competitiveness. In particular, the end of the Cold War brought new kinds of thinking and concern about what type of problems Japan might face in the next century. Of course those issues include regionalism, economic strategy shifts after the end of the Cold War, and intricate major power relations among Japan, China, and the United States. In reality the post-Cold War challenges are also a turning point for Japan, compelling it to deal with new problems and to decide what kind of roles it is going to play.

ANALYSIS OF CIVILIAN EMPLOYEE ATTRITION AT THE NAVAL POSTGRADUATE SCHOOL AND NAVAL SUPPORT ACTIVITY-MONTEREY BAY

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The purpose of this thesis is to assist management at the Naval Postgraduate School (NPS) and Naval Support Activity-Monterey Bay (NSA-MB) to determine what civilian non-faculty employee jobs are likely to be left vacant in the next three years due to attrition and to identify what training and skills will be needed by personnel whose jobs may be eliminated in order to be transferred to jobs left vacant due to attrition. The research methods include forecasting and work-analysis. The data were obtained from the Defense Civilian Personnel Data System files for fiscal years 1989 to 1996. The results show ten jobs, based on average number of accessions, attrition rates, forecasted vacancies, and qualification similarities, that may be left vacant to receive transferred personnel. The results also show that the training needed to effectively transfer personnel will be minimal and can be provided at local technical/vocational schools for those working in Clerical and Administrative positions and at NPS for those working in Administrative and Managerial positions. Because of job specialization and low attrition rates, Firefighters, Police Officers, Heavy Mobile Equipment Mechanics, and Automotive Mechanics will need much more training if they are to be transferred to other jobs at NPS and NSA-MB. It is recommended that management intervene to change hiring practices to increase future vacancies in jobs whose vacancies may not be sufficient enough in number or may not appear quickly enough to receive personnel. Three scenarios using the forecasting model are presented to provide alternative methods of increasing those vacancies.

APPLYING COMMERCIAL PRACTICES TO NAVY HUSBANDING SERVICES CONTRACTS

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This thesis focuses on the application of commercial practices to Navy husbanding services contracts. It examines the general background and framework for the use of husbanding agents within the Department of the Navy and explores the pre-award and post-award issues associated with these husbanding services contracts. Through personal interviews and a review of the available literature, the research provides beneficial insight into the practices currently being utilized by commercial ship operator firms and commercial port agencies. The research identifies several best commercial practices as they relate to husbanding services and examines the benefits and the barriers for the Navy to implement these practices.

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JOINT PROFESSIONAL MILITARY EDUCATION AND ITS EFFECTS ON THE UNRESTRICTED LINE NAVAL OFFICER CAREER

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The results of this thesis show Joint Professional Military Education (JPME) has four primary impacts on the Unrestricted Line (URL) Naval officer career. First, JPME is an effective retention tool. Second, almost all URL officers completing JPME do so between the 10 and 22 year points in their career. Third, a URL officer completing any form of JPME prior to the 0-5 promotion board does not have a significantly better chance of promoting to 0-5; whereas, a URL officer completing resident JPME prior to the 0-6 promotion board has a significantly better chance of promoting to 0-6—except in the case of nonresident JPME, intermediate level Phase I/II, and the equivalents (Federal Executive Fellowships or Foreign Service Colleges). For these three forms of JPME, the effect on promotion is insignificant at all levels. Fourth, unlike JPME, a URL officer completing any form of graduate education prior to the 0-5 promotion board has a significantly better chance of promoting to 0-5. In contrast, a URL officer completing graduate education after the 0-5 promotion board does not have a significantly better chance of promoting to 0-6. These results seem to indicate the potential for a critical point in the URL officer career with respect to JPME and graduate education. Combining the proper mix of JPME and graduate education in relation to this point has the potential effect of increasing URL Naval officer career efficiency and effectiveness.

FORECASTING NAVY ISSUE AND RECEIPT WORKLOAD AT DEFENSE LOGISTICS AGENCY DEPOTS

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Each year the Defense Logistics Agency (DLA) asks the military services to estimate their future issue and receipt workload demands at DLA distribution depots. DLA uses these estimates to determine expected costs and revenues at the distribution depots. Accurate workload forecasting allows DLA planners to establish appropriate surcharges for their services. Inaccurate estimates can lead to higher costs to DLA and, ultimately, to the Navy. We evaluate current Navy forecasting methods and develop several causative factors that influence issue and receipt workload. We present single and multiple regression models to predict future issue and receipt demands and compare these models with those currently used by Naval Supply Systems Command. Our results suggest that causal-based modeling is a feasible alternative to current models and may more accurately estimate future issue and receipt workload for the Navy.

PAST PERFORMANCE POLICY IMPLEMENTATION AT THE PORTSMOUTH NAVAL SHIPYARD

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The use of past performance as a factor in the source selection process intuitively makes sense. A contractor's record of past performance is a good indicator of future performance and should be used to make best value vice low cost contract awards. The Federal Government recognizes the value of assessing past performance and mandates its use by all agencies. This study discusses the issues surrounding the use of past performance. It also provides an overview of current mandatory and

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discretionary past performance guidance, and describes several past performance information systems applicable to the Portsmouth Naval Shipyard, Portsmouth, NH. An analysis of the shipyard environment is then used to form the basis for an effective policy implementation plan. Currently past performance shall be a significant factor in all competitively negotiated procurements above one million dollars. Similarly, evaluations must be prepared for each contract valued at five hundred thousand dollars or above. These thresholds will soon be lowered to one hundred thousand dollars each. Implementing the highly discretionary Federal policies at the command level requires a thorough understanding of the issues surrounding past performance such as fairness, the prescriptive versus tailored approaches, new entrant treatment, information validity, and implementation costs. Successful implementation is also dependent upon command specific needs and limitations. This study investigates the issues surrounding the implementation of the Federal past performance policies at the Portsmouth Naval Shipyard.

AN ANALYSIS OF AUTOMATIC IDENTIFICATION TECHNOLOGY APPLICATIONS IN NAVAL LOGISTICS

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This thesis evaluates potential uses of automatic identification technologies (AIT) in support of Naval logistics. AIT includes a range of technologies and techniques which incorporate the rapid and accurate capture of data and its subsequent processing for cognitive recognition and identification. An introduction to the various AIT system components, from the well established bar coding technology to the more versatile radio frequency identification (RFID) technology, is presented. Additionally, the underlying fundamentals of Naval logistics principles, functions, and elements are discussed, including how these themes translate into promising potential uses of AIT. Recent Naval AIT applications are featured and the results and lessons learned evaluated. In this era of joint operations and use of coalition forces, this work places emphasis on compatibility, interoperability, and the importance of enforcing standardization of AIT symbologies in the commercial and military sectors. The DoD is in the midst of great change and restructuring, especially in the area of logistics. This study provides Naval logistics stakeholders a broad overview of the prevalent AIT system component capabilities and limitations. An AIT implementation model is also featured that delineates the various program elements which have significant impact on the efficiency and effectiveness of procured AIT systems. A thorough understanding of the technology and its associated integration issues should enable Naval leadership to make sound AIT acquisitions.

FACTORS THAT IMPACT A VIRTUAL COMMANDER IN A CONCURRENT COMMAND STRUCTURE

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This thesis analyzes factors that impact a Virtual Commander. In-depth interviews with personnel at the Naval Postgraduate School and the George C. Marshall Center for European Studies informed the development of a case study documenting the implementation and maintenance of a virtual command structure. Qualitative and archival data are analyzed to inform the professional officer corps about factors that impact a virtual command structure. Based on a systems approach, seven

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factors frame the research: executive leadership style, skills, virtual command structure, strategic implementation factors, staff employment, advanced information technology systems, and organizational culture. Strengths, weaknesses, opportunities, and threats are discussed for implementing and maintaining a virtual command presence. Propositions are provided for future analysis.

THE CIVILIAN MARINERS OF MILITARY SEALIFT COMMAND: PRELIMINARY ASSESSMENT OF ORGANIZATIONAL CULTURE AND VALUES

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This thesis serves as a preliminary assessment of culture and values, and the resultant effect on performance and moral at Military Sealift Command (MSC), from the perspective of its largest subculture, the civilian mariners (CIVMARS). The study gathered qualitative data from 83 CIVMARS aboard seven of MSC's ships. The objective was to raise the issues of concern to CIVMARS, and based on this information, to develop and pilot test a survey for future use to quantitatively study a larger sample of CIVMARS. The data was gathered during focus group meetings with CIVMARS who were asked to evaluate MSC's six core value areas: customer focus, teamwork, honesty and integrity, innovation, empowerment, and people.

The results show that: 1) CIVMARS do not feel valued by MSC; 2) relations between afloat and ashore personnel reflect low levels of trust and poor communication; and 3) numerous process problems inhibit MSC's effectiveness. Since these results are preliminary, it is recommended that MSC implement the culture survey developed by this research. Using a more substantial, representative sample of mariners will provide information that can guide action in the following areas which emerged from this research: 1) increase focus on human resource practices; 2) improve communications; 3) examine the detailing process of CIVMARS; and 4) reassess the validity of the core value areas.

AN ASSESSMENT OF THE EFFECTS OF CHANGING FAMILY CIRCUMSTANCES ON THE SIZE AND DIVERSITY OF FUTURE MILITARY ACCESSIONS

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This thesis examines the relationship between changing family circumstances and the educational outcomes of children, and derives the implications of changes in family background on the quality and diversity of future military recruiting pools. The data sources for this thesis were the Panel Study of Income Dynamics, maintained and published by the University of Michigan, and the March Current Population Surveys, maintained and published by the U.S. Bureau of Labor Statistics. We estimated the effect of family background variables such as family income, parental education levels, and number of siblings, on the likelihood of children either completing high school or attending college. We then used these relationships to simulate the rates of high school completion and college attendance for nationally representative samples of children selected from the March 1974/1975 and 1993/1994 Current Population Surveys. The results indicate that today's children from white families will likely complete high school at lower rates but attend college at somewhat higher rates, as compared to people who were children in the early 1970s. Today's children who are growing up in minority families will likely graduate from high school at lower rates, and today's black and Hispanic children who do complete high school will be less likely to attend college, again compared to children from the 1970s. These trends suggest that military recruiters will

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likely have more difficulty recruiting from among all youth for enlistment and may have less success in finding minority officers.

COMMERCIAL TECHNOLOGY FOR AVIATION CONFIGURATION MANAGEMENT

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This thesis examines the current policy and procedures used to manage naval aviation configuration control. It recommends that the Navy consult with SABRE Decision Technologies, or a company with a similar background, to re-engineer the process for approving configuration changes and create an information technology system to manage the process.

During this study, two major challenges to naval aviation configuration policy were identified. They are: (1) the process used to review and approve Engineering Change Proposals (ECPs) is too complex and has too many stakeholders and (2) the current method for management of approved configuration changes is man-hour intensive, has potential for administrative error, and requires physical inspection to positively verify aircraft and equipment configurations.

Finally, this study presents the theory that there are many common requirements between naval aviation maintenance and commercial airline maintenance. We should take advantage of the experience and technological innovations of industry and use them to make the configuration policy, and the entire maintenance effort, more effective for the users in the fleet.

AN ANALYSIS OF THE EFFECTS OF MILITARY HOUSING ALLOWANCES AND OTHER MILITARY RELATED FACTORS ON PRIVATE SECTOR RENTAL HOUSING PRICES

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Privatization of Military Family Housing will place a greater reliance on private sector rental housing. Before the DoD embarks on any policy changes that place a greater emphasis on private sector housing, the DoD must be certain that rental property landlords do not raise rental prices based on changes in a service member's housing allowances. This thesis explores the relationship between changes in military housing allowances and changes in private sector rental prices. A multiple regression model was used to determine this correlation. Department of Housing and Urban Development (HUD) Fair Market Rent data was used to measure the changes in private sector rent prices in 25 cities. Basic Allowance for Quarters (BAQ), Variable Housing Allowance (VHA) rates, and a ratio that measured the presence of military members in a given area were used as the independent variables. Using the three independent variables described above, the result did confirm the popular impression that rent prices do rise with increases in housing allowances. However, the correlation was not as significant as anticipated. In an effort to make the model more useful as a policy tool, recommendations are provided for an expanded dependent variable data source and additional independent variables.

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CANNIBALIZATION AT THE PACIFIC FLEET F/A-18 TRAINING SQUADRONS

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This thesis analyzes cannibalization as it affects the Pacific Fleet Navy and Marine Corps F/A-18 Fleet Replacement Squadrons. This thesis researches the supply/support posture of the F/A-18, identifies its shortcomings, analyzes the cannibalizations performed by the squadrons and determines the impact and usefulness of cannibalizations. An increase in cannibalizations increases component failure rates. Cannibalization doubles maintenance man-hours and depletes valuable resources. The data showed no clear linear relationship between cannibalizations and mission capable rate, flight hours completed, sorties completed or direct maintenance man-hours. There were many inconsistencies between different data sources. Cannibalizations should be kept to a minimum. More specific guidance is needed for cannibalization. A better tracking system is needed to capture all cannibalization data. Incentives should be incorporated to encourage truth and accuracy in reporting.

ANALYSIS OF DECISION MAKING IN THE ACQUISITION OF TECHNOLOGY

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This research effort examines decision-making processes involving technology acquisition in large organizations. A considerable amount of resources are committed by senior managers to technology and the technology acquisition process. Resource constraints dictate that senior managers commit resources to technologies that ensure an organization's ability to remain relevant as a manufacturer or service provider. Senior managers are responsible for the decisions that ensure the effective employment of limited resources. A clearer understanding of the decision-making process and the tools available to decision-makers will potentially assist other senior managers in making decisions related to technology.

AN ANALYSIS OF THE PRODUCTION RECRUITING INCENTIVE MODEL (PRIME) IMPLEMENTATION WITHIN THE UNITED STATES ARMY RECRUITING COMMAND

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The Government Accounting Office (1994) recommended the United States Army Recruiting Command (USAREC) alter its quota-based recruiting system. USAREC responded by implementing a team-oriented recruiting system known as Success 2000. Most recently, USAREC experimented with the Production Recruiting Incentive Model (PRIME) at the Albany Recruiting Battalion. PRIME is an alternative to the quota-based system. It is designed to motivate recruiters to access the highest number of quality recruits possible, based on their own market research and demand forecasts.

The primary objective for this research is to analyze PRIME's effectiveness at the Albany Battalion. PRIME production results were compared with Albany's prior year production and with the results of a control group. An assessment was

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also provided of PRIME's impact on recruiter's quality of life. USAREC committed several errors which impede the implementation and execution of the experiment. Additionally, the individual recruiter's production data was missing, which is vital for completing a thorough evaluation of the program. Although the results are inconclusive, USAREC still hopes to retain some of the positive aspects of the model. The conclusion contains recommendations for the implementation of PRIME within other battalions in the command.

CHANGING THE VP RESERVE READINESS SYSTEM TO MATCH THE CREW-COORDINATION REQUIREMENTS OF RESERVE AIRCREWS

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Recently, the VP community has been identified as a force area where reserves could be used more in peacetime contributory support. The subsequent increased interaction between reserve and active VP forces has led to a similar readiness system.

The current VP readiness system promotes long-term, fixed crews with TACNUC rules. Adhering to these crew composition rules can cause considerable scheduling difficulties for reserve squadrons. Squadron readiness officers are often forced to change events, pick different crews, or turn the event into a practice session due to last minute civilian commitments of SELRES crewmembers.

This thesis examines current crew-coordination research to determine the value of keeping crews together. The study proposes alternatives to the current TACNUC rules and analyzes their perceived impact according to SME interviews.

This study recommends discarding the TACNUC rules in favor of a readiness system based on individual qualifications. The desired crew-coordination training can be accomplished through the ongoing TPC and ACT programs. Standardization of crew communication patterns and positional task expectancies should continue so that each individual crewmember can perform well on any crew.

CASE STUDIES OF MERGER ACTIVITY IN THE DEFENSE INDUSTRY SINCE 1993

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To cope with a shrinking defense budget, the U.S. defense industry has undergone an unprecedented wave of consolidation. Since 1993, Moody's Investors Service has counted over 20 defense industry mergers and acquisitions. Reasons given for the consolidation include achieving critical economies of scale and combining complementary resources in a bid to remain competitive in a capital intensive industry. This thesis examines the financial impact of three merger/acquisition events: Northrop's purchase of Grumman, Lockheed's merger with Martin Marietta, and Raytheon's acquisition of E-Systems. Analysis is conducted to assess financial condition as revealed in an examination of financial ratios and financial prospects as revealed in an examination of market value and market returns.

Financial condition of the firms was marked by a decline in relative profitability and a degradation in solvency for those that made purchase type acquisitions. Despite negative impacts to many financial performance measures, stocks of these companies achieved total returns in excess of the Standard and Poor's 500 index in the year of the merger event. Price earnings ratios also increased in relation to the S&P 500 P/E, showing that investors may have looked past short term costs of restructuring for longer term gain as a result of the consolidation.

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CHANGING ROLES AND MISSIONS OF THE MEDICAL BRANCH OF THE NAVAL RESERVE DURING THE PERIOD 1987-1995

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This thesis examines the changing roles and missions of the medical branch of the Naval Reserve in the post-Cold War period. These changes were brought about by the end of the Cold War, the subsequent drawdown, and the need to make better use of the resources of the United States Navy. It draws primarily on Navy and Department of Defense Instructions, General Accounting Office and Department of Defense Inspector General reports and Congressional hearings. Personal interviews with CNRF, CNSRF, and BuMed were also utilized. Four areas of change were identified. These areas are use of the Reserves to provide: (1) a reduction in Active Component OPTEMPO/PERSTEMPO, (2) contributory support at CONUS MTF's, (3) humanitarian and peacekeeping assistance, and (4) single-sourcing of Fleet Hospitals. Two changes, reduction in Active Component OPTEMPO/ PERSTEMPO and contributory support at CONUS MTF's have been fully implemented. Humanitarian and peacekeeping assistance is an area in which the medical branch of the Naval Reserve expects (but has yet to) be employed. Singlesourcing of Fleet Hospitals is a new initiative that has additional requirements for the medical branch of the Naval Reserve. Finally, the relationship between training policies and programs and these changed roles and missions is discussed.

U. S. MARINE CORPS COMPANY – GRADE OFFICER RETENTION

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This thesis analyzed factors which influenced the retention of male, junior Marine Corps officers who were serving within their initial period of obligated service. A broad social science approach combining organizational and individual behavioral factors was used to model the turnover decision. A multivariate logistic regression model was estimated using these factors to determine their relative importance in explaining differences in the actual retention behavior of these officers. Subsequent models were then estimated to identify and explain differences in the factors affecting the retention between married and single personnel.

Data for this study were drawn from a matched file of responses to the 1992 *Department of Defense Survey of Officers and Enlisted Personnel and Their Spouses* with 1996 follow-up retention information from the Defense Manpower Data Center's Master Loss File. The factors found to influence significantly the sample members' decisions to remain on active duty included: commissioning source; occupational specialty; deployment to Operation Desert Shield/Storm; satisfaction with various intrinsic aspects of life in the Marine Corps; concerns with the force drawdown; whether or not the officer had searched for civilian employment in the last twelve months; whether or not the officer believed that the skills he had acquired in the Marine Corps would be transferable to the civilian market; and the influence on the career decision of the officer's spouse. Finally, recommendations regarding future policy as well as areas for further related research were made.

